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IDENTIFIERS Anglo American Cultural Attitude Scale; Black American Cultural Attitude Scale; Culturally Specific Tests; Likert Scales; Mexican American Cultural Attitude Scale; Puerto Rican Cultural Attitude Scale

ABSTRACT

Each of the four Cultural Attitude Scales (CAS) contains fifteen graphic illustrations of the dress, sports, food and popular symbols for the Anglo American, Black American, Mexican American, and Puerto Rican cultures, respectively. Designed to measure ethnic identity or cross-cultural awareness for grades one to six, they do not require reading ability. The child indicates an attitude toward each illustration by marking one of five faces on a happy- to-sad Likert scale; an alternate response option indicates no knowledge of the particular cultural referent. Each scale thus yields two scores: attitude and knowledge. Despite the similarities in form and context, each scale is independent. The scales can be administered alone or in combination. (The scales are included. A Technical Report discusses their development and describes studies confirming their reliability and validity relative to teacher ratings, sociometric choices, and verbal cultural attitudes. Tables display the item analysis data and percentile norms.) (Author/CP)

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Black American Cultural Attitude Scale

Developed by:
Perry Alan Zirkel, Ph.D.

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APR 1 80
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NAME: _____ SEX: M F

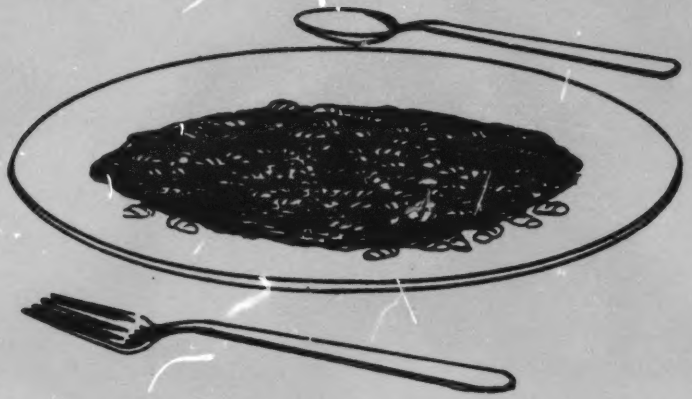
AGE: _____ GRADE: _____ CULTURE: B A PR

SCHOOL: _____ CITY: _____

SUBSCORES: BLACK _____ ANGLO _____ PUERTO RICAN _____

Basketball player

Gnocchi



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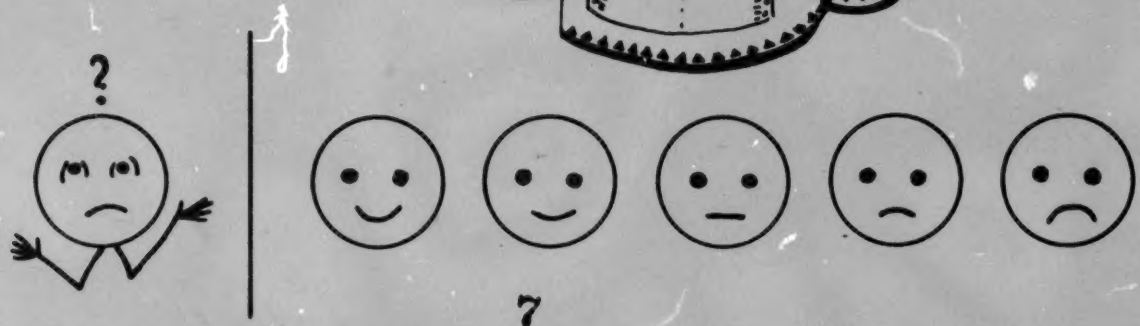

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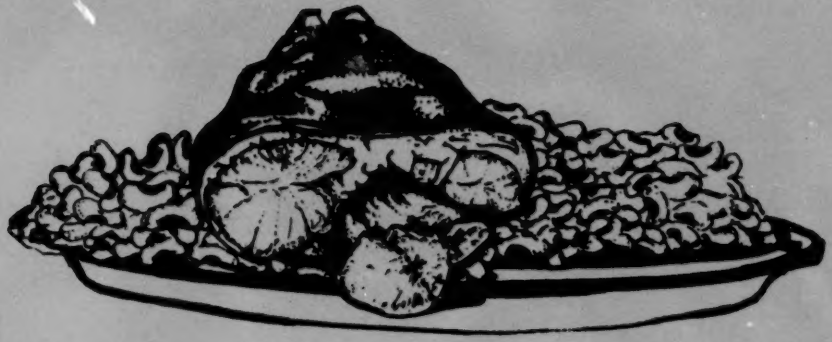
Ham hocks



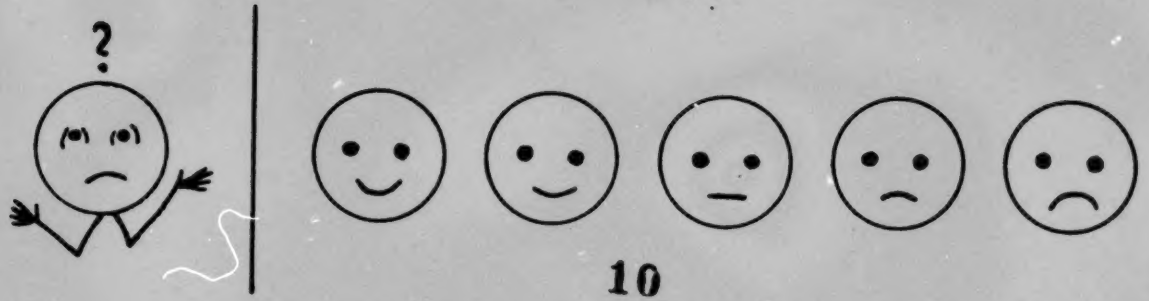
2

8

Africa

9

Martin Luther King



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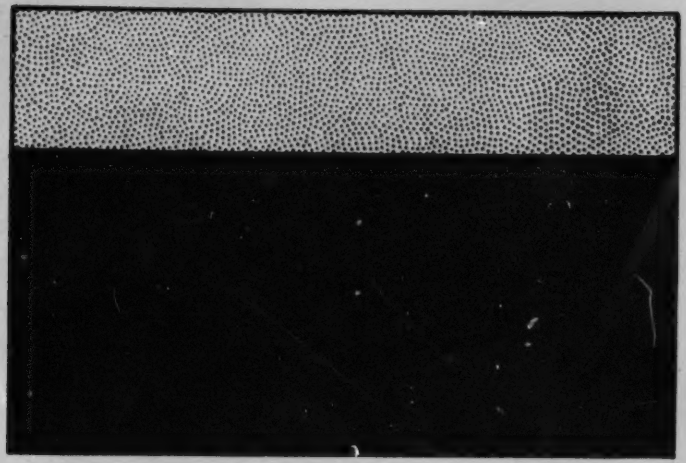
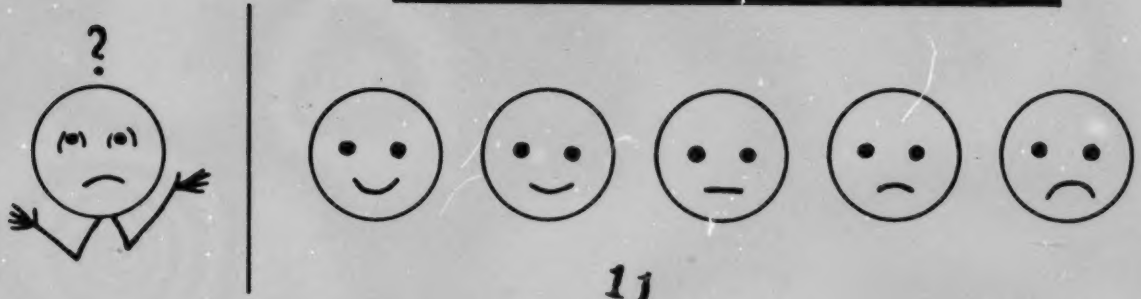
Black liberation flag





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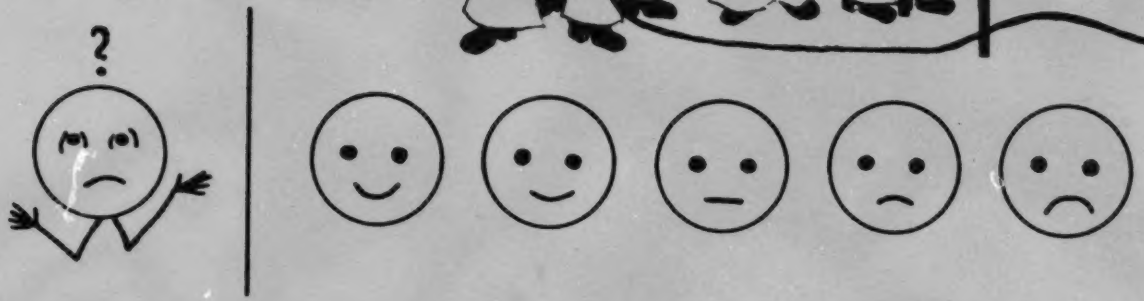
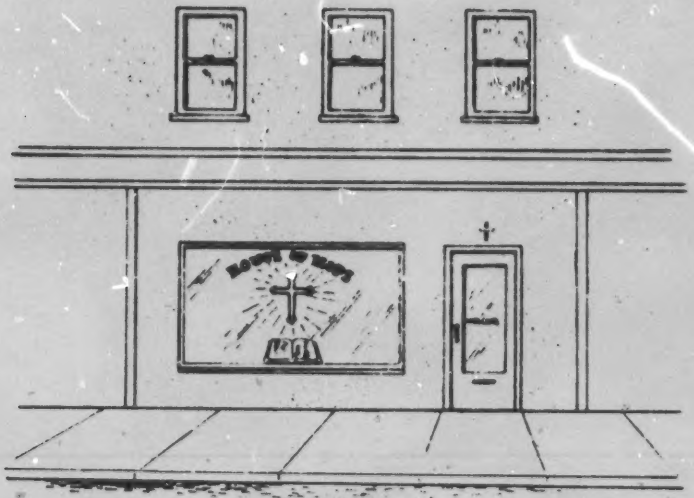
Soul music



Church



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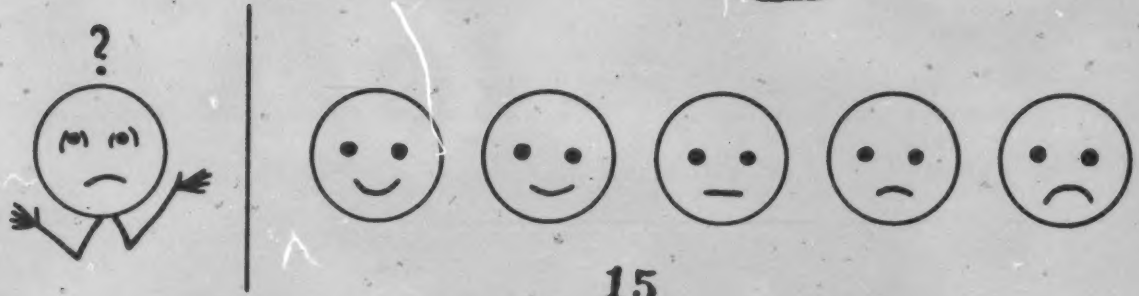
Black power

14

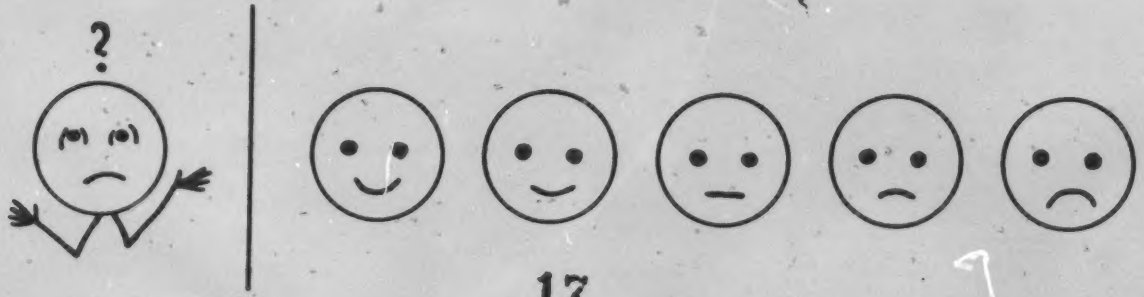
Congo drums



Afro

10

Black love



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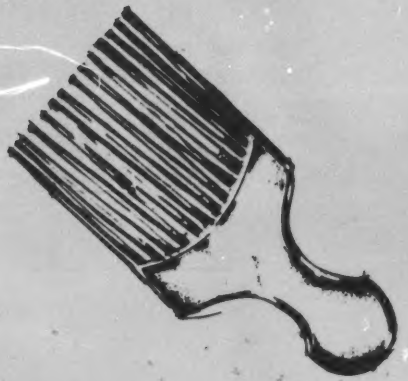
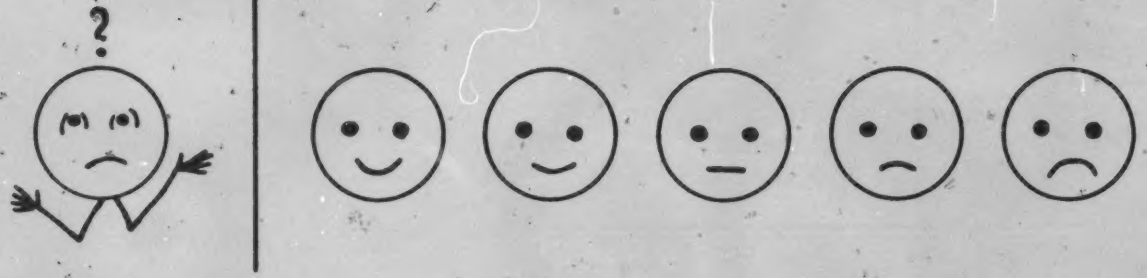
Afro pick





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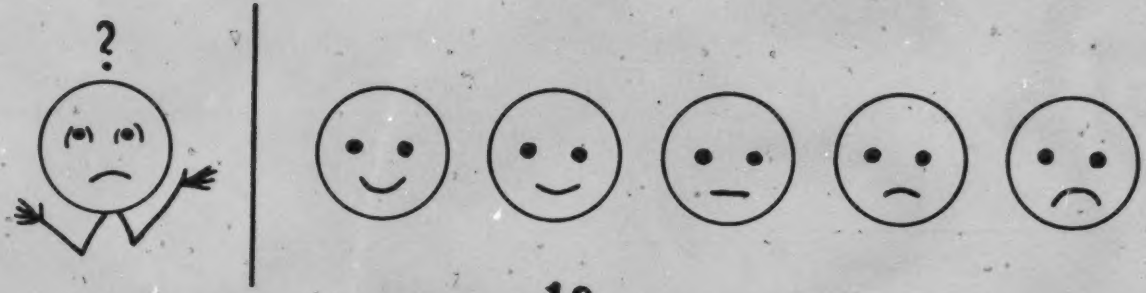
Corn rolls



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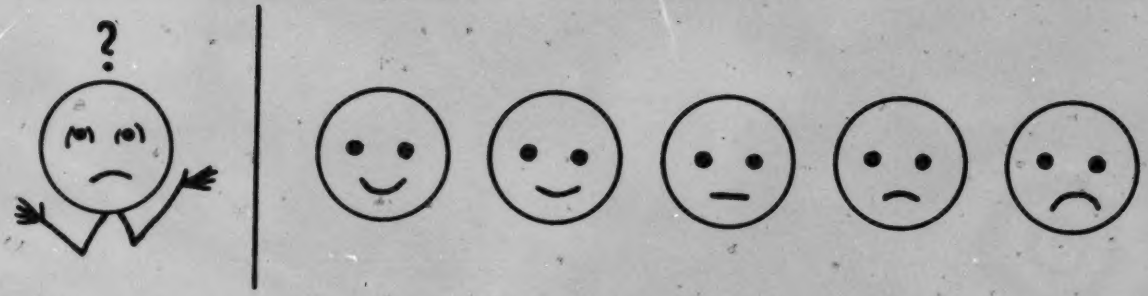
Gelé

20

Malcolm X



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Artwork by:
Robert Black
Mary Daniels

Cover Graphics: Jan Babcock

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Anglo American Cultural Attitude Scale

Developed by:
Perry Alan Zirkel, Ph.D.

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NAME: _____ SEX: M F

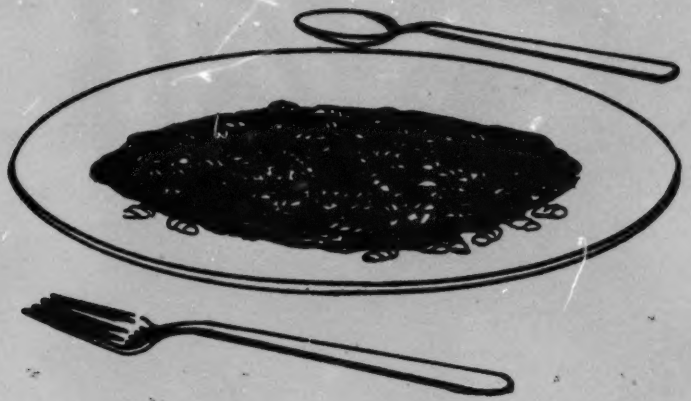
AGE: _____ GRADE: _____ CULTURE: B A PR

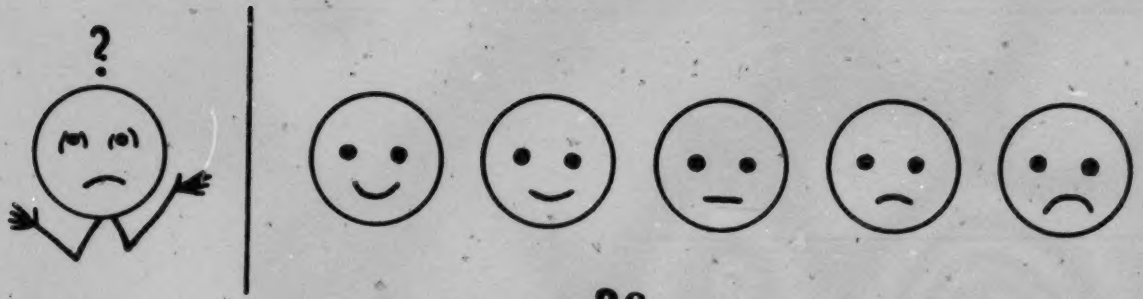
SCHOOL: _____ CITY: _____

SUBSCORES: BLACK _____ ANGLO _____ PUERTO RICAN _____

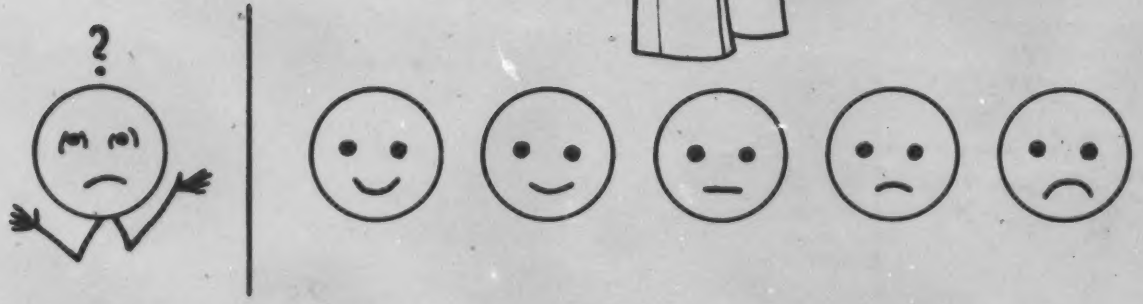
Basketball player

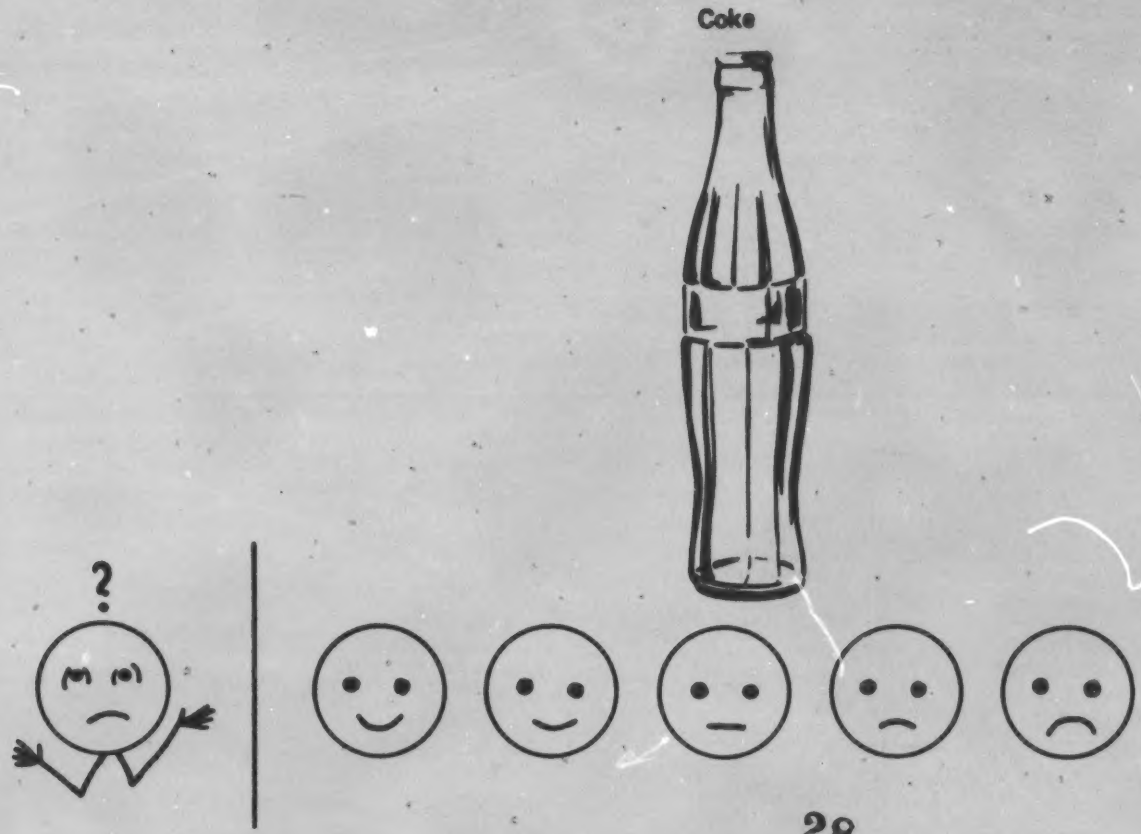
Gnocchi



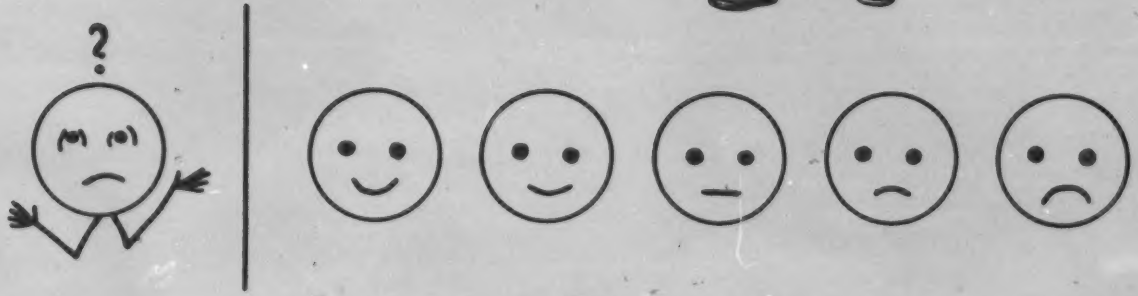


Blue jeans



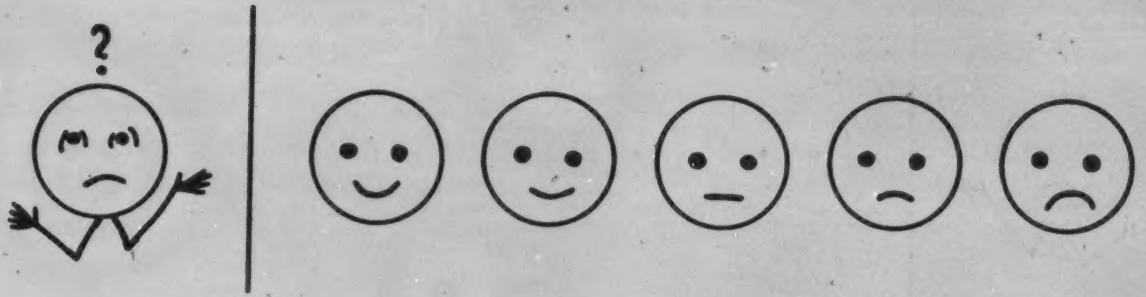

Coke
?

Frisbee

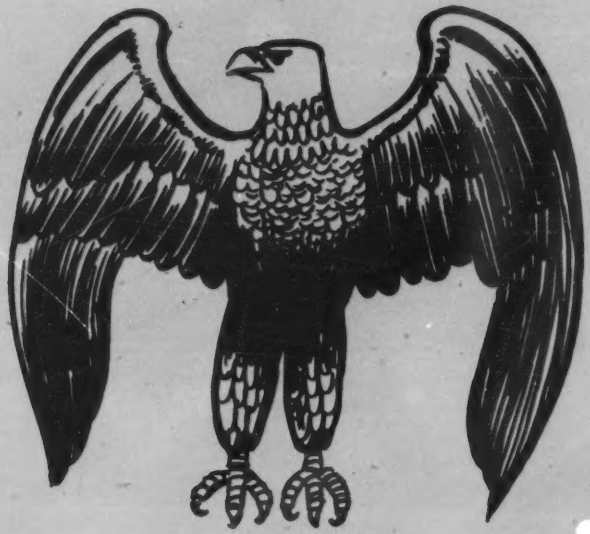


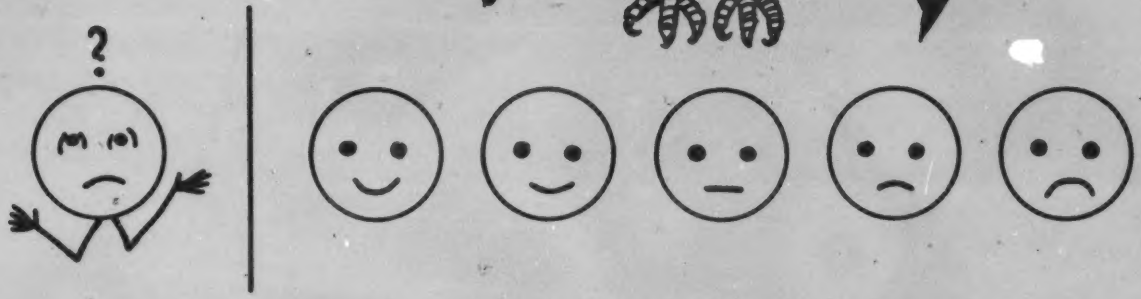
Football player

Hot dog



American eagle





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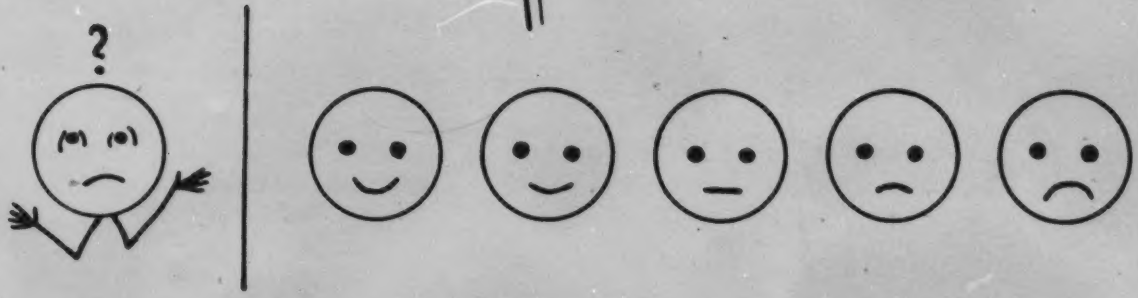
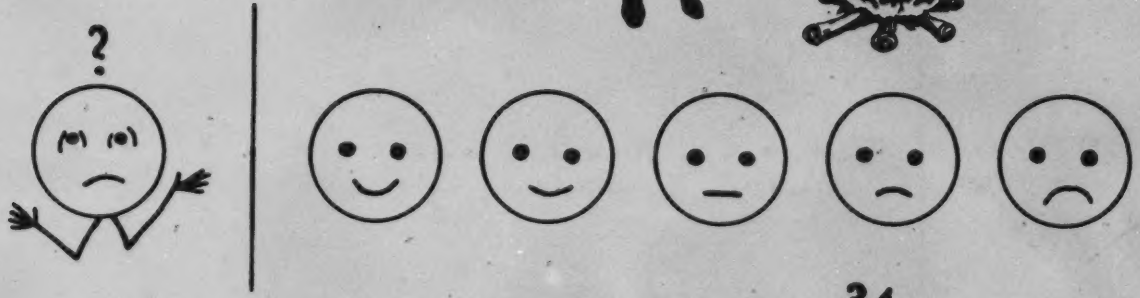
American flag

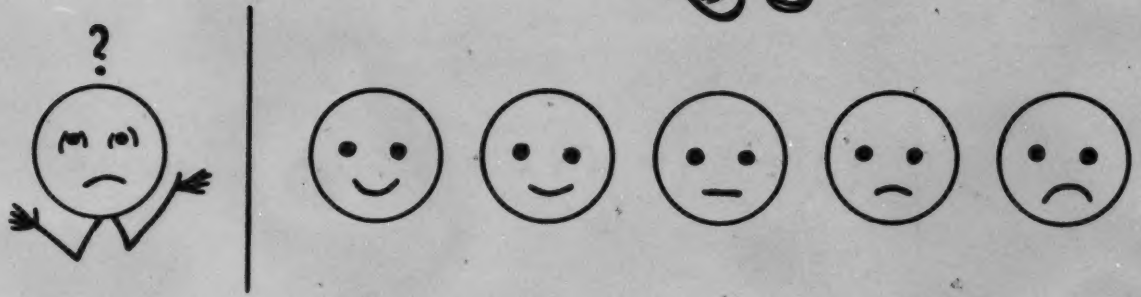


7

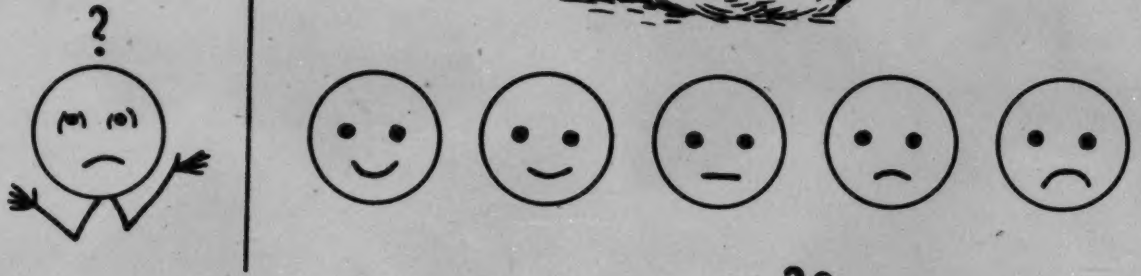
Pilgrims



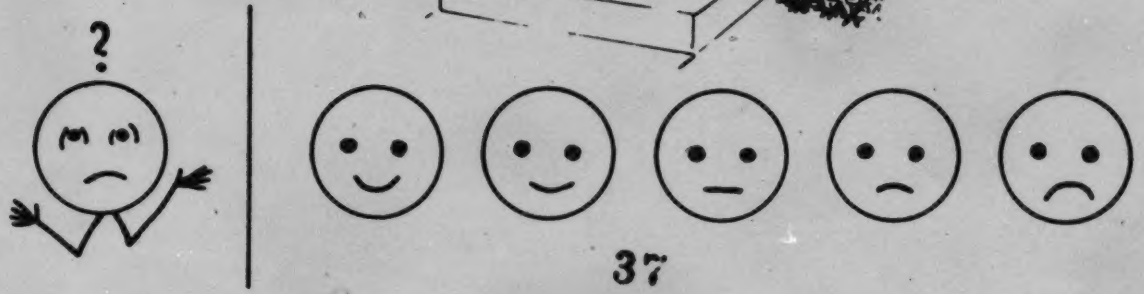
Mickey Mouse



Snowman



Halloween



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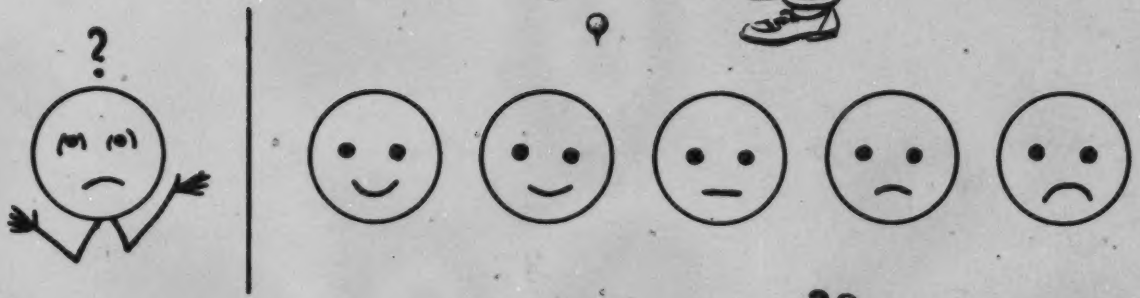
Golfer



Astronaut

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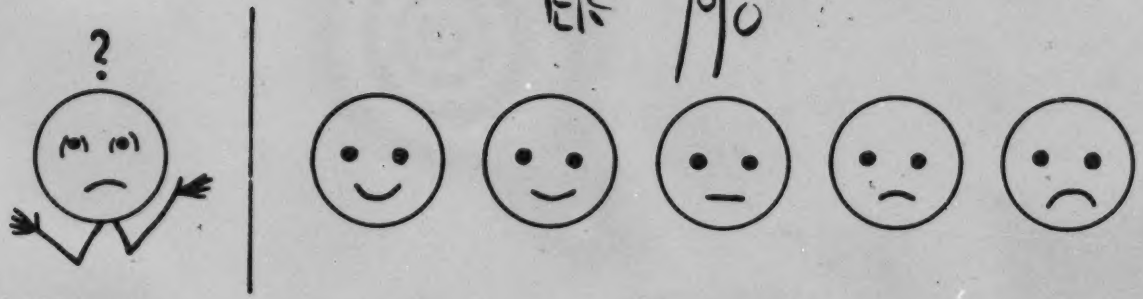
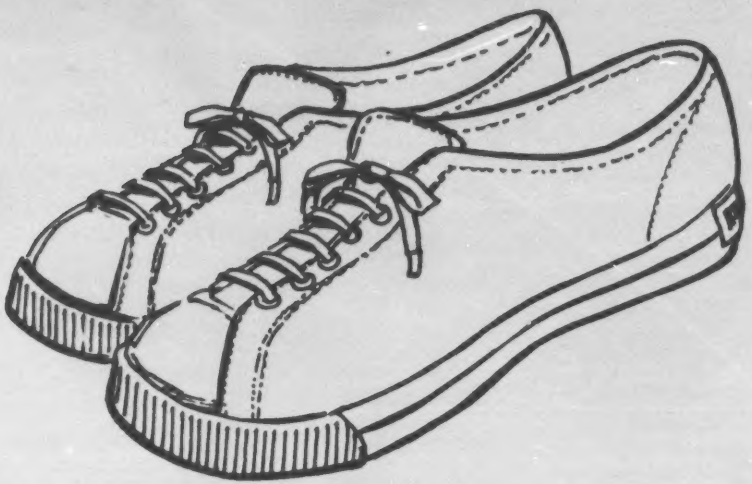
George Washington



Sneakers



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Mexican American Cultural Attitude Scale

developed by:
Stephan L. Jackson 42

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NAME: _____ SEX: M F

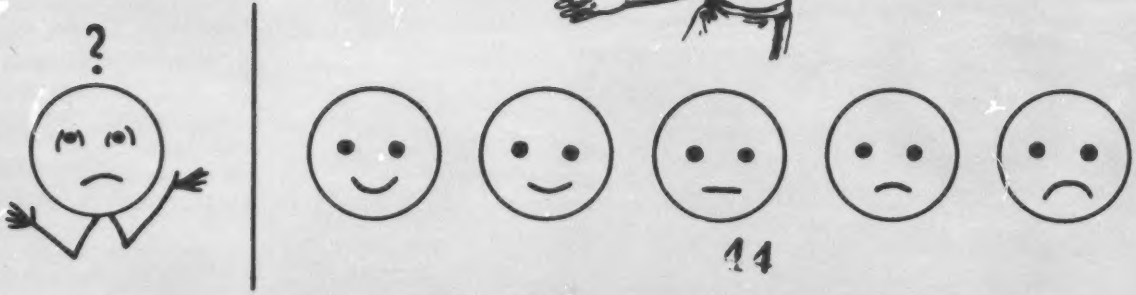
AGE: _____ GRADE: _____ CULTURE: B A PR MA

SCHOOL: _____ CITY: _____

SUBSCORES: BLACK _____ ANGLO _____ PUERTO RICAN _____

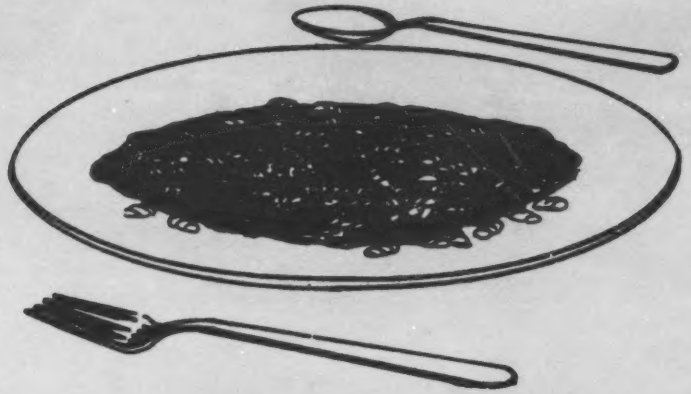
_____ MEXICAN AMERICAN

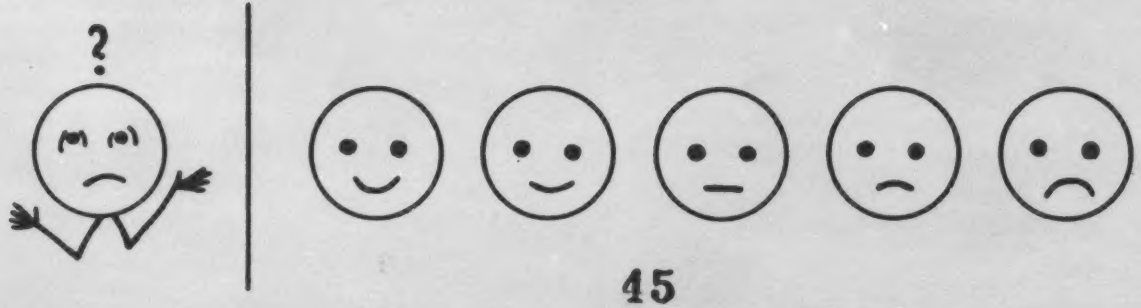
Basketball player



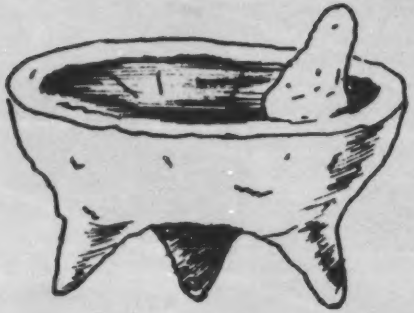
11

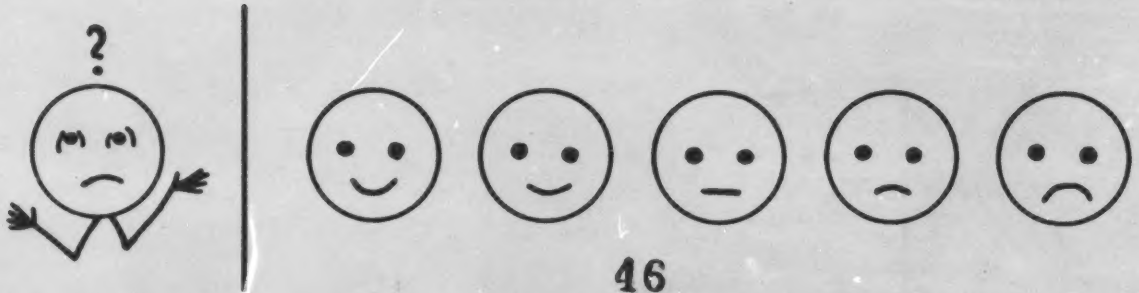
Gnocchi





Molcajete

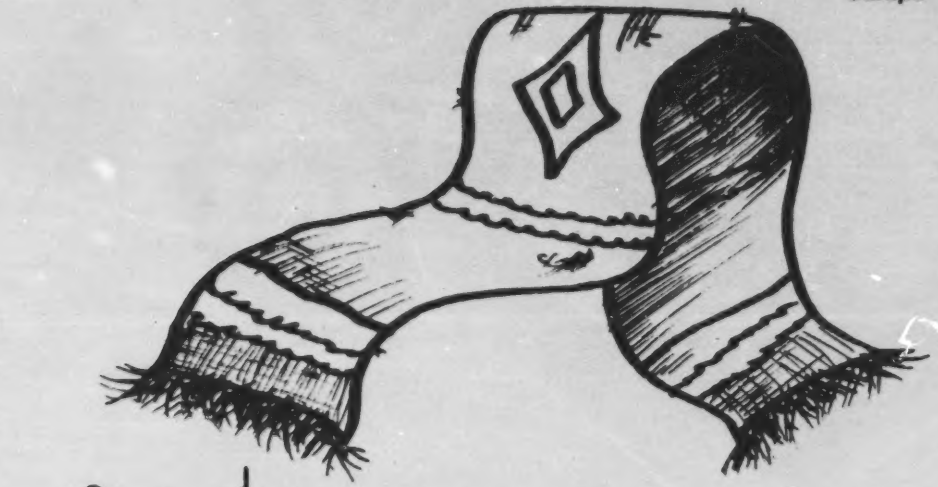


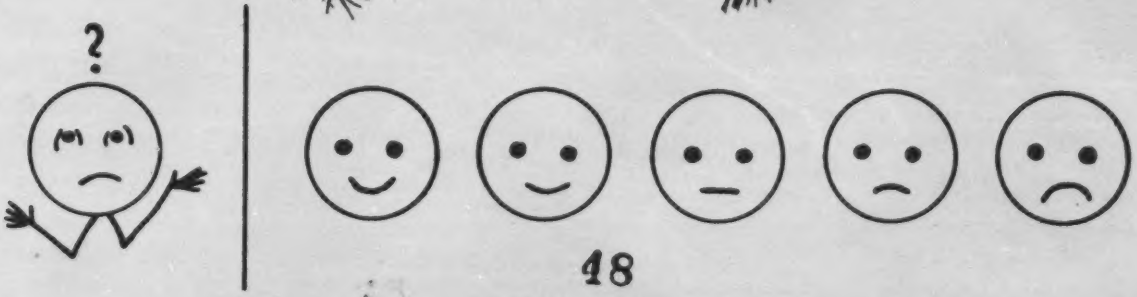


Emiliano Zapata

6

Sarape





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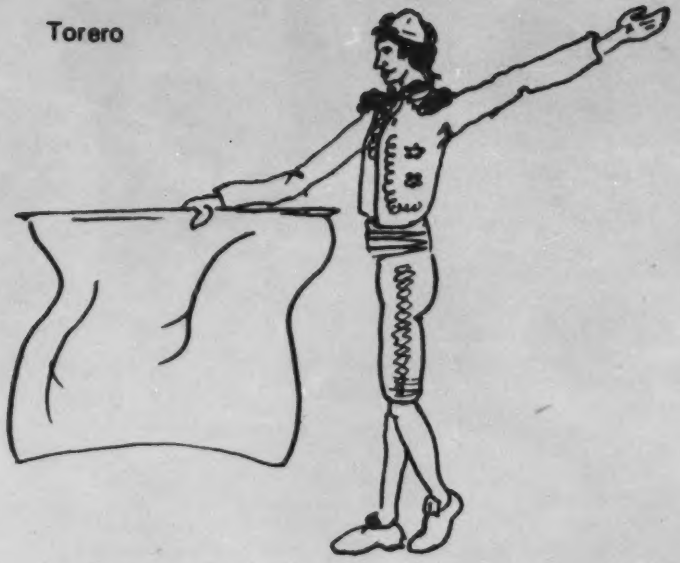
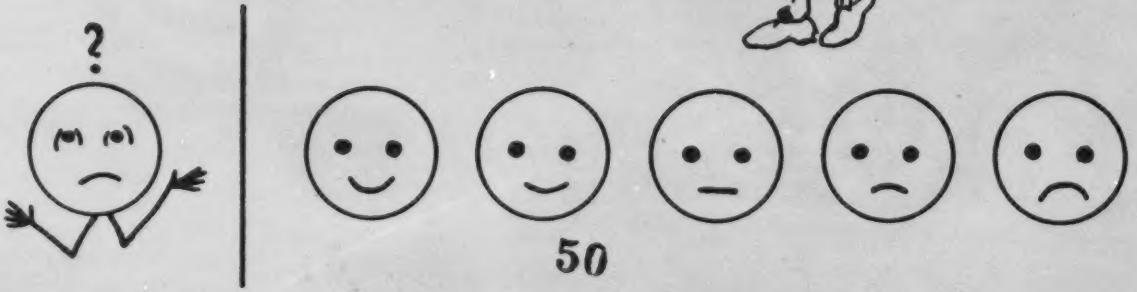
Arroz con Pollo

8

Torero





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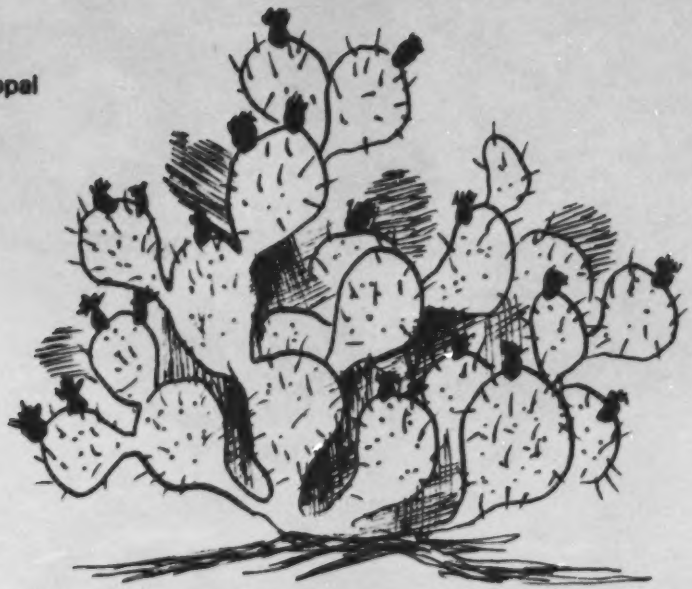
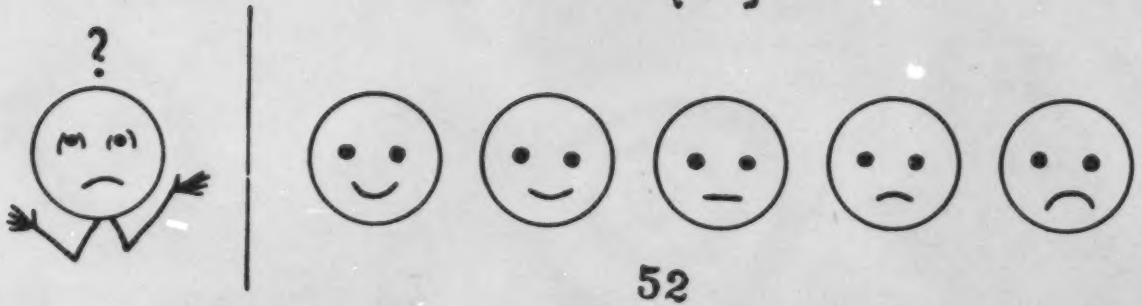
Nopal



10

51

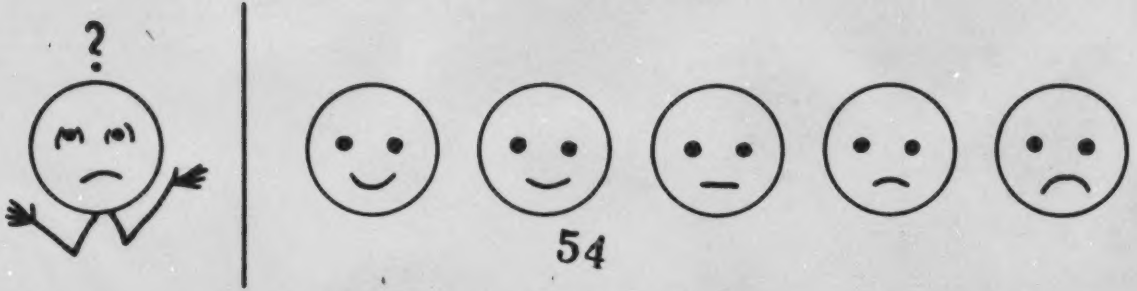
Benito Juarez



Mariachis

53

Calendario Azteca



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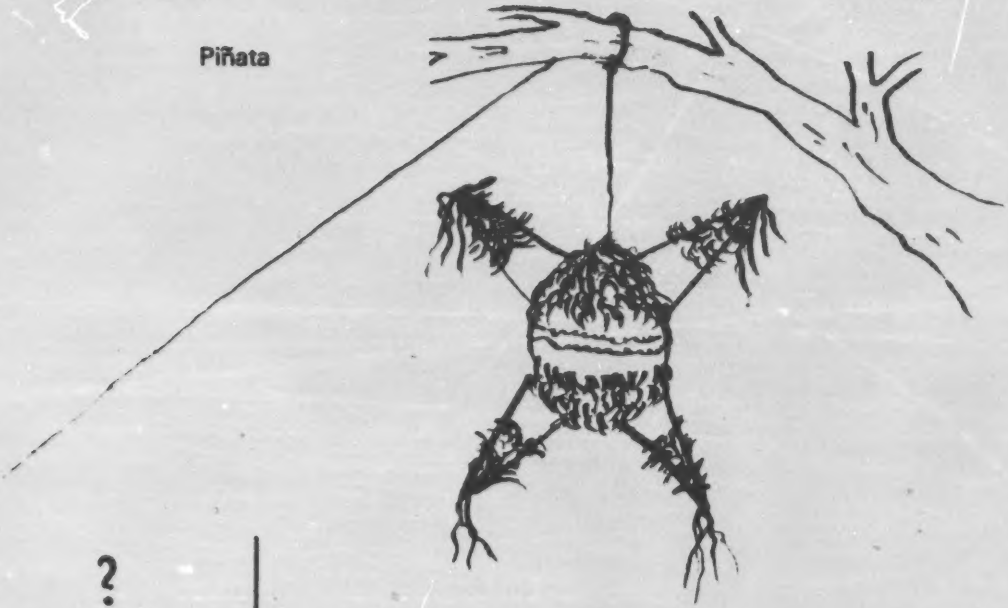
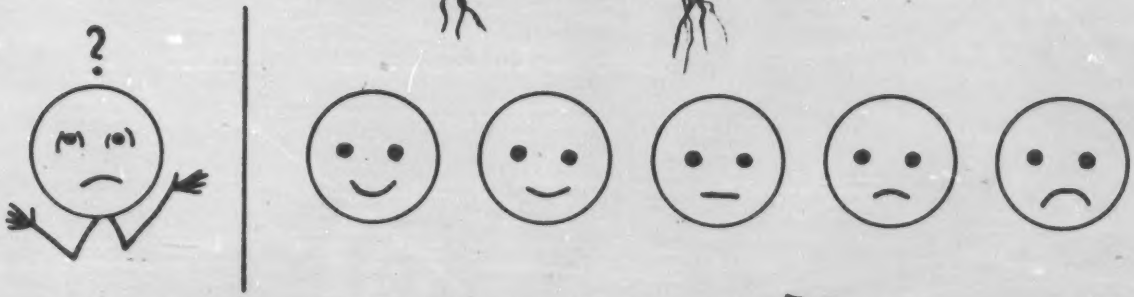
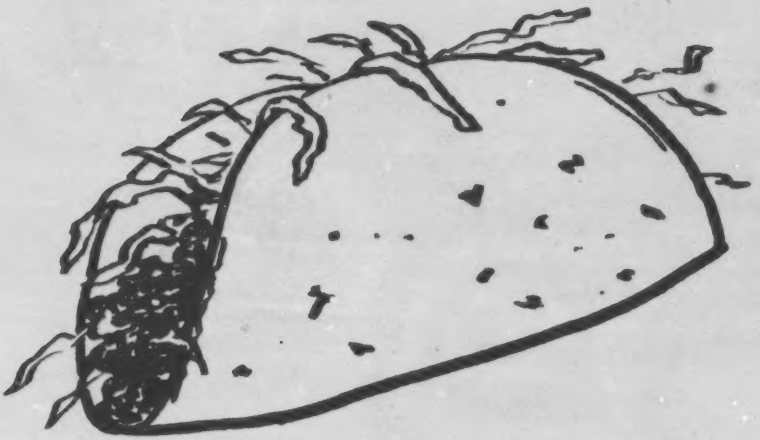
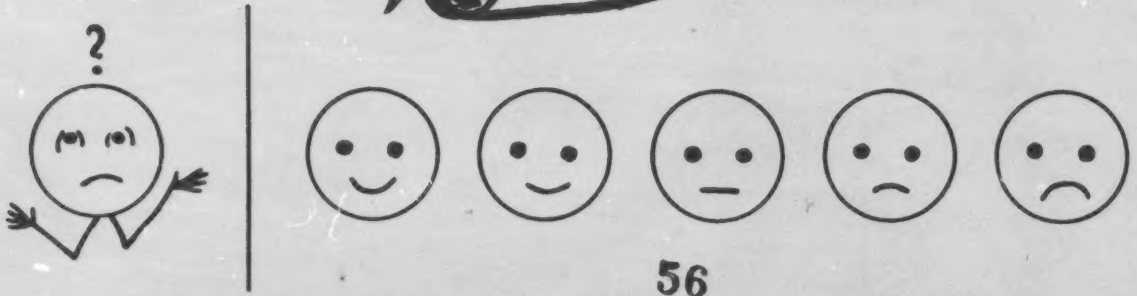
Piñata



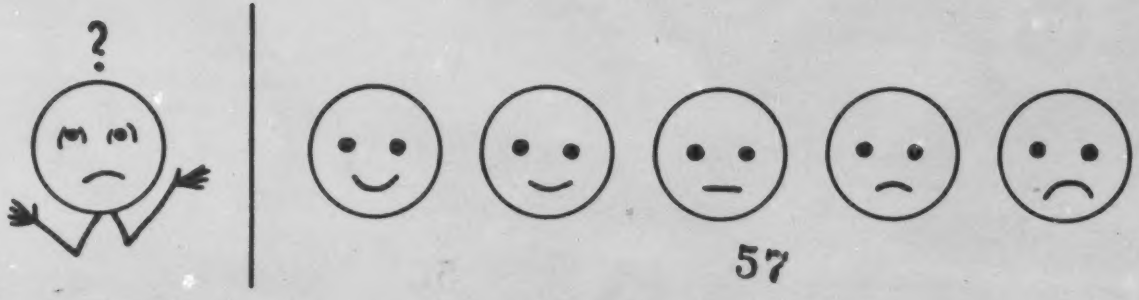


Taco





Enchiladas



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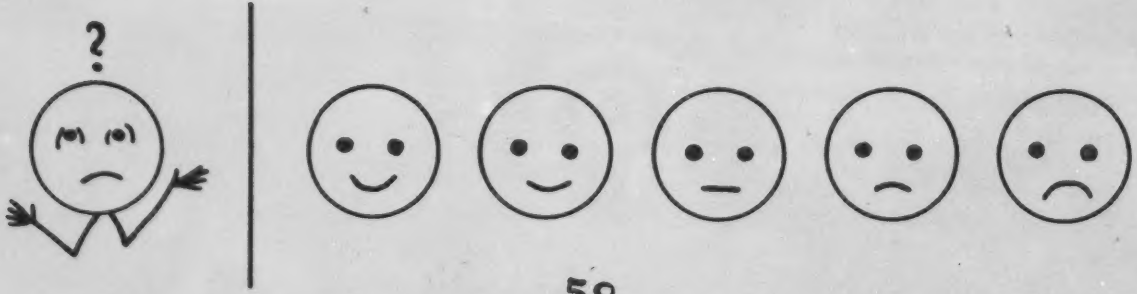
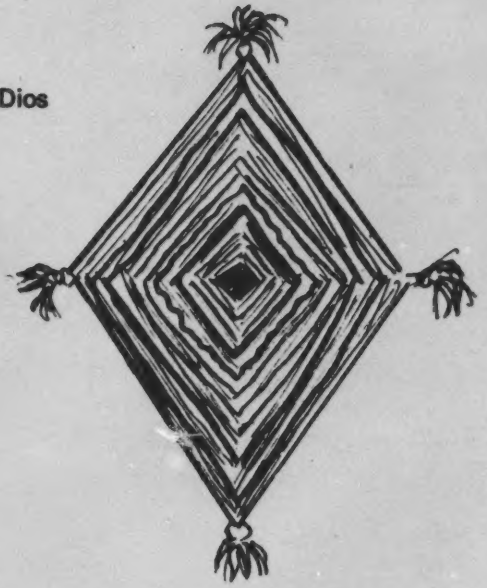
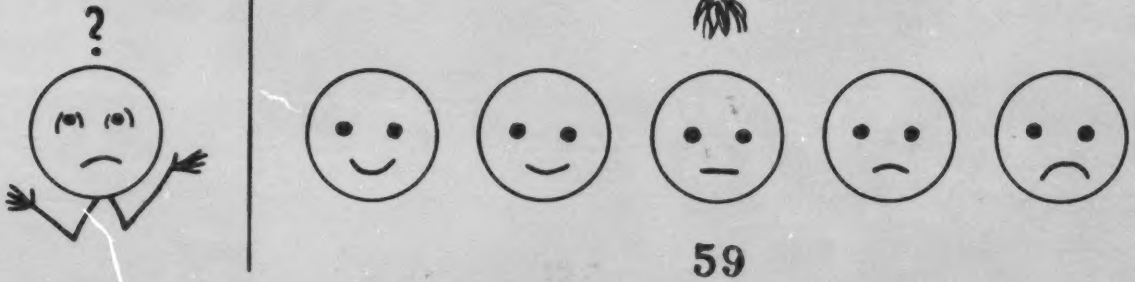
Bandera de México

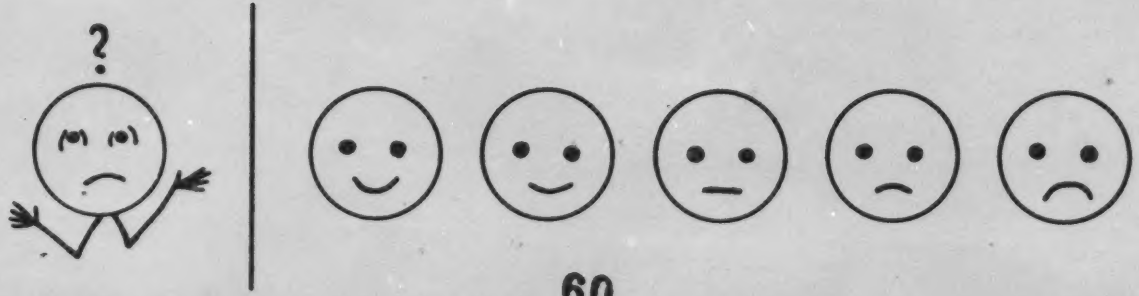


Ojo de Dios





Pancho Villa



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TM 800270 (4 of 5)

Puerto Rican Cultural Attitude Scale

Developed by:
Perry Alan Zirkel, Ph.D.

61

NAME: _____ SEX: M F

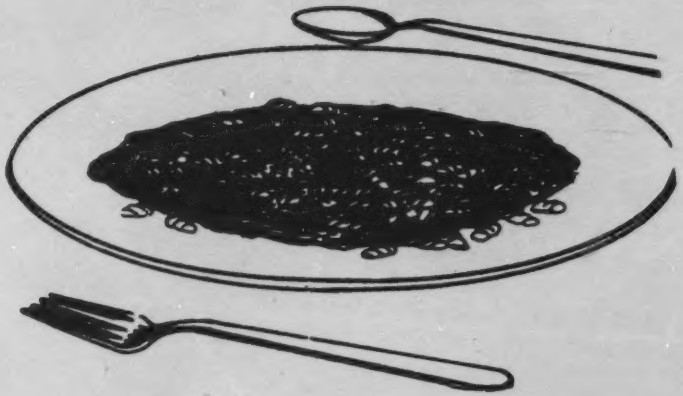
AGE: _____ GRADE: _____ CULTURE: B A PR

SCHOOL: _____ CITY: _____

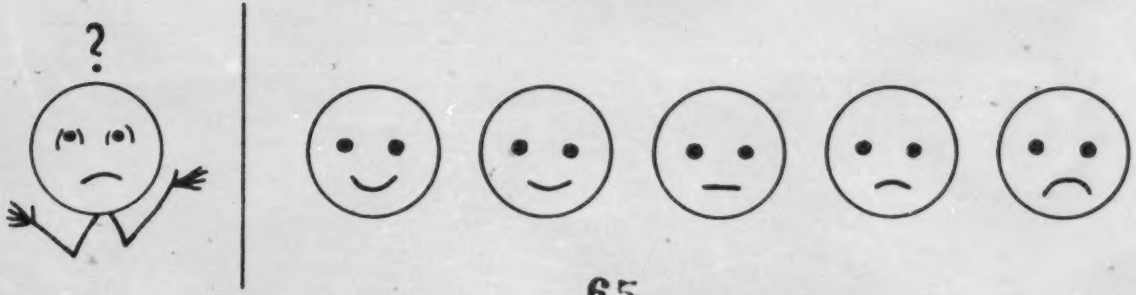
SUBSCORES: BLACK _____ ANGLO _____ PUERTO RICAN _____

Basketball player

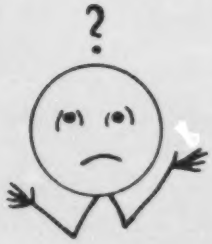
Gnocchi



lechon asado



la pava



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la palma

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el piragüero

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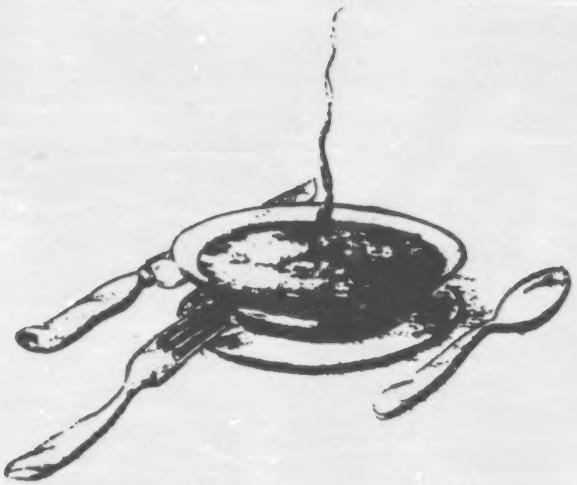
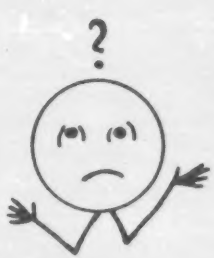
la bandera de Puerto Rico

69

asopao





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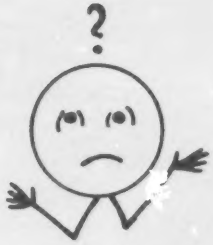
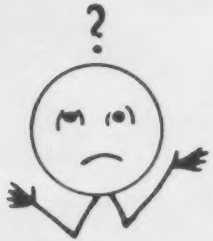
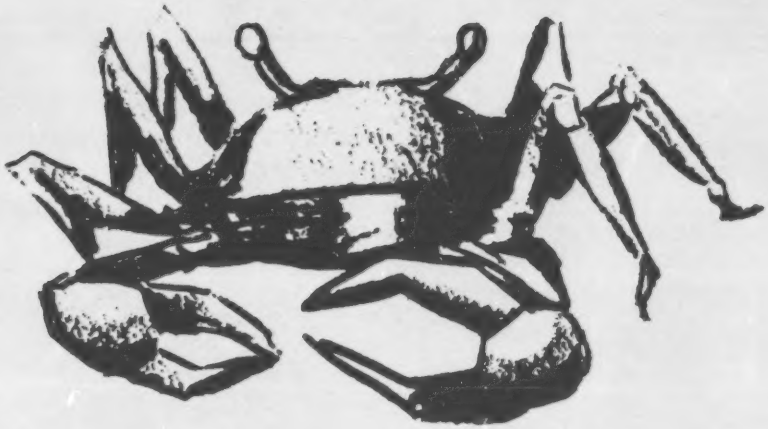
el jíbaro



quenepa



juey



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los gallos

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una procesión

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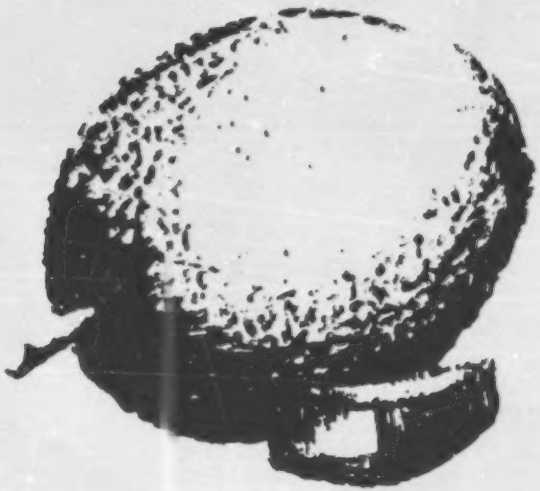
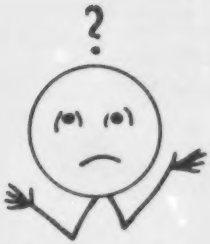
el panapén





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José de Diego

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güiro y maracas

78

la playa

Artwork by:
Luis Padial Porrata

Cover Graphics: Jan Babcock

CULTURAL ATTITUDE SCALES
PUERTO RICAN,
BLACK-AMERICAN,
AND ANGLO-AMERICAN

TECHNICAL REPORT

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April 1974

PUBLISHED BY

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INTRODUCTION

The *Cultural Attitude Scales* represent a modular approach to the measurement of cultural attitudes and knowledge with respect to the Puerto Rican, Anglo-American, and Black-American cultures. They are applicable to programs which propose to enhance ethnic identity or cross-cultural understanding among any one or more of these three ethnic groups. These modular measures do not require reading ability; rather, they are based upon pictorial stimuli and response options. The directions are particularly appropriate for elementary school programs involving children who may differ culturally and linguistically.

The fifteen stimuli for each scale are graphic illustrations of the dress, sports, foods, and popular symbols of the Puerto Rican, Anglo-American, and Black-American cultures, respectively. The child indicates his attitude toward each pictorial stimulus by marking one of five faces on a happy-sad Likert-type scale. There is also an alternate response option indicating no knowledge of the particular cultural referent. Each scale thus yields two scores: a cultural attitude index and a cultural knowledge index.

Despite the similarities in form and content, the *Black-American, Anglo-American,* and *Puerto Rican Cultural Attitude Scales* (15 items each) are independent measures. They can be administered and utilized alone or in combination.

ACKNOWLEDGMENTS

This instrument reflects the combined efforts of several dedicated people in the various stages of its development.

The immediate predecessors of the instrument were the original Mexican-American version of the *Cross-Cultural Attitude Inventory*, developed by Jackson and Klinger at the Region XIII Education Service Center in Austin, Texas, and its subsequent Puerto Rican version developed by Zirkel and Miranda at the Connecticut Migratory Children's Program at the University of Hartford in Connecticut. Mr. Juan Rivera, then representing the National Consortia for Bilingual Education, provided important assistance in the development of these prototype instruments.

The author conceived and coordinated the development of the *Cultural Attitude Scales* to meet the need of educational programs designed to promote cultural understanding and respect among Black, Anglo, and Puerto Rican children in public elementary schools. Interested educators representing these three ethnic groupings were instrumental in the development and pilot testing of the respective subtests.

The items for the Black-American scale were collected and pilot tested by Miss Gwen Wilks and Miss Sherry Balfour of the SAND Everywhere School in Hartford, Connecticut. Mr. Robert Black, another talented teacher at the school, and Miss Mary Daniels provided the artwork for these items.

The items for the Anglo-American scale were collected by the author's wife, Mrs. Carol Zirkel, and pilot tested by Miss Michele Baker, a teacher in the Hartford Public Schools. The initial drawings were submitted by Mr. David Gaffny, and the final drawings were prepared by Mr. Harry Hartley.

The items for the Puerto Rican scale were collected by the author from a large number of Puerto Rican educators, including Mr. Héctor Soto, Mr. Calixto Torres, Mrs. Edna Negrón Smith, and Mr. Ismael Miranda of the University of Hartford's Teacher Corps Bilingual Project; Mr. Néstor Acevedo, Mrs. Pepita Heikoff, and Ms. Sylvia Velilla of the Hartford Public Schools; Miss Felicia Troubell of the New York City Schools; and Mrs. Virgenmina Moreno of the Jersey City Bilingual Project. The illustrations were generously contributed by Mr. Luis Padial Porrata, an artist in Puerto Rico. The items were pilot tested by Mrs. Sandra de Castejón, a bilingual teacher in the Hartford Schol system, and Mrs. Leonor Díaz de Prewitt, a school principal in Aibonito, Puerto Rico.

The data for the reliability and validity studies were collected by Mrs. Vilma Begueri of the New Britain Public Schools; Mr. Henry Albino and Mrs. Bertha Hernández of the New Haven Public Schools; Mrs. Cecelia Márquez of the New London Public Schools; Ms. Michele Baker, Mr. Ramón Cruz, and Mr. Héctor Soto of the Hartford Public Schools; and Miss Jane Rizo-Patrón of the University of Hartford. Mrs. Rosa Dwyer and Ms. Michele Baker of the University of Hartford Teacher Corps Bilingual Project assisted in the review of related research.

Finally, the author would like to express his appreciation to Mr. Ray Bard of Learning Concepts, Inc., for his patient and professional assistance in the publication of the instrument.

DEVELOPMENT

A culturally pluralistic model was the goal of the development process as well as the actual products represented by the *Cultural Attitude Scales*. Each component module is based upon the input of various members of that particular ethnic group. Their participation in the several stages of development (deriving, drawing, screening, and analyzing the items) was coordinated with the target pupils as the focal point.*

Rationale

"Culture" and "attitude" are admittedly elusive constructs, not readily subject to measurement. While their importance in the school setting has only recently been realized, necessity is beginning to prevail over difficulty with respect to the development and utilization of appropriate instrumentation to assess cultural attitudes in the school setting.

The various definitions of culture developed by anthropologists are exemplified by Linton (1945) as follows:

> A culture is the configuration of learned behavior whose component elements are shared and transmitted by the members of a particular society.

More recently, the distinction between the particularistic conception of "Culture" and the generic definition of "culture" has become significant. Culture with a capital "C" (or "Kultur" in the German conception) refers to the fine arts developed within each society. Although evidently important, this conception of "high culture" ignores and, in effect, denigrates the broader reality of the ways of life of a given

* A sample of the many persons who generously contributed to the various stages of the development of each subtest is included in the Acknowledgments section of this report.

people. These ways of life are manifested in the dress, language, foods, sports, and popular symbols characteristic of a people..

"Attitude," in the view of psychologists (Shaw and Wright, 1957, p. 3), refers to:

> A relatively enduring system of evaluative, affective reactions based upon and reflecting the evaluative concepts or beliefs which have been learned about the characteristics of a social object or class of social objects.

Hohn (1971, p.1) pointed out that "children at the age of five are apparently well on their way to the development of cultural attitudes...."

The measurement of cultural attitudes became a point of interest prior to World War II (Shaw and Wright, 1967). However, most such efforts focused upon the cross-national attitudes of adults or college students.

Bogardus' *Social Distance Scale* (1925, 1933) was one of the earliest and most commonly used instruments. Bogardus' scale consists of selected statements representing seven equidistant social situations (e.g., "Would marry," "Would work beside in my office"). The subjects are asked to indicate those statements which they consider applicable to given national or religious groupings. This instrument is obviously not appropriate for young children in a school setting.

The semantic differential technique developed by Osgood, Suci, and Tannenbaum (1957) has more recently been utilized to measure cross-cultural attitudes. The use of their scale, which is based upon pairs of bipolar adjectives (ex: "good-bad," "strong-weak," and "fast-slow") is somewhat limited by the spatial and linguistic capacities of young children. Moreover, this technique tends to focus on global, abstract stimuli.

The need for more specific and tangible stimuli and response modes relevant to minority- as well as majority-group children in the school setting prompted the development by Jackson and Klinger (1971) of the *Cross-Cultural Attitude Scale*. This scale incorporates pictorial stimuli representing concrete components of the Mexican-American and Anglo-American cultures. Its pictorial response mode consists of five faces on a happy-sad dimension, graphically representing a 1-to-5 Likert-type scale. The use of faces as a response mode has been used with regard to self-concept research (e.g., Dysinger's *Why Do I Smile Scale,* Estes' *Attitude Towards Reading Faces Scale,* Farrah's *Self-Concept and Motivation Inventory,* Frymier's *Attitude Towards School Scale,* Labrida's *FACES Inventory,* and Strickland's *Attitude to School Scale*).

Item Derivation

The original item pool was derived from informal interviews and discussions with pupils, parents, and teachers of each of the target cultural groups, respectively. These sources were asked to suggest possible items, representing the way of life of their cultural group, which could be easily evoked by a simple illustration and a typical expression. This broad-based procedure generated forty to sixty items for each culture.

A committee representative of the particular cultural group then reduced the item pool for each subtest by approximately 35 percent. Eliminations were based on preliminary considerations only. For example, those item possibilities which were not amenable to simple illustration (ex: "soul," "democracy," "machismo"), which were dependent at least in part upon recognition of words (ex: "O.K.," "bodega") or which duplicated a broader or more integral construct (ex: "arroz" vs. "arroz y habi-

chuelas" or "baseball glove" vs. "baseball player") were eliminated in this preliminary selection stage. The resulting pool for each subtest consisted of twenty-five to thirty-five items.

Item Illustration

Each committee then selected an artist of their cultural background to prepare simple line drawings of each item in the reduced item pool. Preliminary directions and feedback were given regarding each illustration. Visual transparencies of the resulting drawings were prepared for the next stage of the developmental process.

Item Screening

Students representing each cultural group served directly as "judges" to screen the prototype item illustrations and terms.* Because of the probable difficulty presented by this task for at least some pupils in the elementary grades, students on the junior high school level were selected to serve as judges. Each group of judges consisted of fifty to fifty-six students in grades 7-10 from a metropolitan area in the Northeast and represented the cultural group of the target prototype items they were asked to judge. There were approximately equal numbers of males and females in each judging group. In addition to the mainland judging groups for the Black-American, Anglo-American, and Puerto Rican cultures, a group of Puerto Rican adolescents in Puerto Rico was secured to complement the screening process for the Puerto Rican items. Given the rural origins found for the Puerto Rican migration to the metropolitan areas in the Northeast (Zirkel, 1973), a small town was selected as the site for this supplementary screening process.

---

* The author would like to thank Dr. Edward Cervenka for suggesting this screening technique. A similar technique was utilized in developing Bogardus' *Social Distance Scale* (see page 19).

Each group of judges was asked to rate the prototype item illustrations for its culture on a questionnaire development in English and Spanish (see Appendix I). The items were presented visually and orally in their prototype forms. The judges rated each prototype item for their culture according to its representativeness on a four-point quality scale (NOT AT ALL to EXCELLENT) and on a two-point valence scale (POSITIVE or NEGATIVE). The valence criterion was added in an effort to minimize possible problems with items which may be considered representative but negative (e.g., "Aunt Jemima" for the Black-American scale) or of ambiguous valence (e.g., "jump rope" for the Anglo-American scale). In addition to the structured ratings, the students were asked to suggest revisions in the prototype illustrations or terms. The final section of the questionnaire was provided for the addition of further item possibilities and their ratings.

The results of each group's screening are reported in Tables I through III. The mean score on the representativeness scale, which ranged from 0 to 3, and the percentage of judges who responded positively on the valence scale are given for each item, along with the resulting decision as to the retention or rejection of the item for the next step in the developmental process. The minimum levels for item retention were operationally defined on the basis of a two-thirds proportion. Thus, an item was rejected if the mean representativeness score was 1.7 or less, or if the positive percentage level was 66% or less.

The prototype items for the Anglo-American scale were judged by a group of fifty-three "Anglo" adolescents, aged 13-16, from a large metropolitan area. The results of their screening are reported in Table I. Of the twenty-five prototype items, six were rejected for failing to meet the criteria of representativeness or positiveness.

In all but one case, the eliminations were based on failure to meet both criteria. "Cowboy" was considered to be relatively representative of the Anglo-American culture, but it was not considered to be particularly positive, perhaps reflecting the recent public consciousness of the plight of the American Indian. Many of the eliminations may have been based on temporal considerations; viz., that they were viewed as out-of-date by the younger generation.

The prototype items for the Black-American scale were judged by a group of fifty-six Black-American adolescents, aged 13-16, from a large metropolitan area. The results of their screening are reported in Table II. Of the twenty-one prototype items, four were eliminated for failing to meet representativeness or positiveness criteria. Students' comments suggested that temporal considerations may have been a predominant factor in the elimination of "apple jack," while serving as a contributing factor, along with the growing "Black Pride" consciousness, in the elimination of "hot comb." The reaction to "slaves" was singularly negative, although the item was considered representative.

Table I

Results of the Anglo-American Screening

Item (term)	Representativeness ($\bar{x}$)	Positiveness (%)	Decision 1 retain 2 reject ($\bar{x}$) 3 reject (%)
American eagle	2.7	94	1
American flag	2.9	98	1
Apple pie	2.2	81	1
Astronaut	2.2	79	1
Blue jeans	2.6	72	1
Coke	2.5	81	1
Cowboy	1.8	56	3
Football player	2.2	88	1
Frisbee	1.8	83	1
George Washington	2.5	91	1
Golfer	1.9	69	1
Halloween	2.1	83	1
Hopscotch	1.3	47	2,3
Hot dog	2.3	75	1
Ice cream cone	2.0	73	1
Jump rope	1.3	52	2,3
Mickey Mouse	2.1	75	1
Pilgrims	2.2	80	1
Pin-the-tail-on-the-donkey	1.2	52	2,3
Popcorn	1.9	81	1
Popeye	1.6	58	2,3
Sneakers	1.9	82	1
Snoopy	2.3	81	1
Snowman	1.8	73	1
Yo-yo	1.4	52	2,3

Table II
Results of the Black-American Screening

Item (term)	Representativeness ($\bar{x}$)	Positiveness (%)	Decision 1 retain 2 reject ($\bar{x}$) 3 reject (%)
Africa	1.9	70	1
Afro	2.0	75	1
Afro pick	2.0	75	1
Apple jack	1.2	45	2,3
Basketball	1.9	70	1
Black liberation flag	2.4	93	1
Black love	2.5	88	1
Black power	2.5	81	1
Church	1.9	78	1
Clean dude	1.5	68	2
Congo drums	2.0	70	1
Corn rolls	2.3	81	1
Dashiki	2.0	69	1
Gelé	1.9	71	1
Ham hocks	2.3	79	1
Hot comb	1.6	40	2,3
Malcolm X	2.1	72	1
Martin Luther King	2.3	88	1
Slaves	1.8	10	3
Soul Music	1.9	70	1
Unity handshake	2.3	90	1

The prototype items for the Puerto Rican scale were screened by two groups of Puerto Rican adolescents, aged 13-16. One group (n = 50) came from a large mainland metropolitan area; the second (n = 52) came from a rural area on the Island. The results for both judging samples are given in Table III. The general levels of the ratings were higher than the Anglo- and Black-American groups, and the reaction of the Island sample was particularly high. Only three of the twenty-six prototype items were rejected: "baile bomba," "el santer," and "trompo."

Table III
Results of Puerto Rican Screening: Mainland/Island Groups

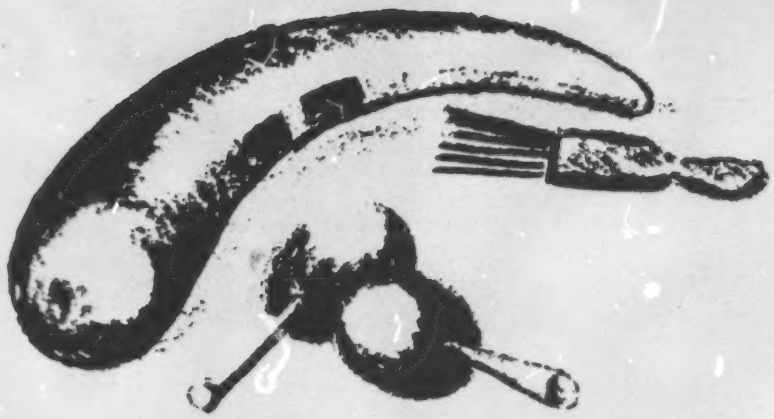
Items (terms)	Representativeness ($\bar{x}$)	Positiveness (%)	Decision 1 retain 2 reject ($\bar{x}$) 3 reject (%)
Arroz con habichuelas	2.8/3.0	87/100	1
Asopao	2.6/2.9	93/99	1
Bacalao	2.5/2.7	83/100	1
Baile bomba	2.0/0.9	60/94	2,3
La bandera de Puerto Rico	3.0/3.0	100/100	1
Café de pan	2.6/2.9	80/96	1
Coco	2.7/2.8	93/97	1
El coquí	2.4/2.7	70/94	1
Los gallos	2.7/3.0	85/100	1
Güiro y maracas	2.7/2.9	88/99	1
El jíbaro	2.7/1.8	76/93	1
Juey	2.6/2.7	85/98	1
Lechón asado	2.9/3.0	95/100	1
Mangó	2.6/3.0	83/100	1
La palma	2.9/2.6	90/98	1
Panapén	2.6/2.0	73/99	1
Pasteles	3.0/3.0	98/100	1
La pava	2.4/2.8	73/99	1
Piragüero	2.6/2.7	87/98	1
Playa	2.7/2.9	80/100	1
Plaza	2.7/2.9	89/100	1
Procesión	2.2/2.9	73/100	1
Quenepa	2.7/3.0	95/100	1
El santero	1.3/1.1	49/88	2,3
Tostones	2.8/2.9	70/95	1
Trompo	2.3/2.7	63/99	1

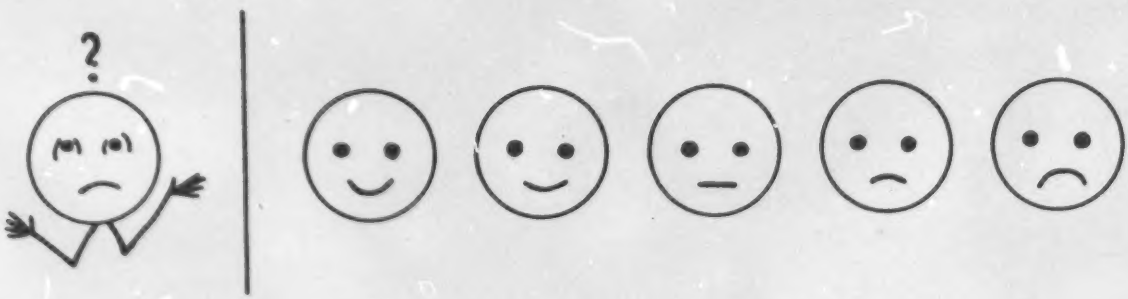
Item Analysis

The items remaining after the screening stage were then compiled into test booklets. The illustrations were revised and refined according to the judging group's comments. A pictorial response mode was selected, consisting of a "wondering" (no knowledge) face separated from five "feeling" faces, ranging from a pronounced frowning face to a pronounced smiling face. The children were directed to mark the "no knowledge" option if they were not familiar with the particular cultural term and illustration. If they were familiar with the item, they were instructed how to mark one of the other faces corresponding to their feelings. Special provisions were employed to ensure that the students understood the task. A sample item is illustrated in Figure 1.

Figure 1

güiro y maracas





The composite sample used for purposes of the item analysis consisted of 336 pupils in grades 1 through 6 of a large urban school system, distributed ethnically in proportion to the expected usage of the instrument. Thus, the majority of the subjects were Puerto Rican (n = 201); a lesser but still substantial number were Black-American (n = 100); and the remainder were "Anglos" (n = 35).

The results of the item analysis for each scale are given in Tables IV through VI. The response distribution is reported for each item as well as the coefficient of correlation between the array of scores for that item and the total score for all the items representing the culture. The decision as to the retention or rejection of each item is also given. The levels for retention were operationally established as 1) a distribution of 80 percent or less for any response category (yielding a criterion frequency of 269), and 2) an *r* with total score of .30 or above.

The results of the item analysis for the Anglo-American scale are reported in Table IV. The responses clustered around the positive end of the scale (viz., option #5). Four of the items were eliminated based on the operational criteria, mostly on the grounds of response distribution. One other item ("Snoopy") was eliminated because of copyright problems. The final form of the Anglo-American scale comprised the fifteen remaining items.

The results for the Black-American scale are given in Table V. The number of responses reflecting unfamiliarity with the items (viz., option #6) was more marked than in the "Anglo" scale. Two of the items were eliminated based on their low correlation with the total score. One of these two items ("basketball") was selected as a practice item, based on its wide appeal to all three ethnic groups. The final form of the Black-American scale comprised the remaining fifteen items.

The results for the Puerto Rican scale are listed in Table VI. All of the items surpassed the general minima for retention. However, six items, all representing foods, were eliminated to provide a better balance with the distribution of cultural referents in the other scales. Moreover, two other items were eliminated based on the results of the Puerto Rican subsample. The remaining fifteen items constituted the final form of the Puerto Rican scale.

Table IV

Item Analysis for the Anglo-American Scale

Item (term)	r with total score	Response Distribution 1	2	3	4	5	6	Decision 1 retain 2 reject (% 80) 3 reject (r 30) 4 reject (other)
American eagle	.42	39	24	39	49	149	36	1
American flag	.39	17	5	25	48	233	8	1
Apple pie	.29	15	0	8	21	282	10	2,3
Astronaut	.55	62	28	37	52	135	22	1
Blue jeans	.34	19	11	29	52	200	26	1
Coke	.44	5	9	17	41	255	8	1
Football player	.50	57	16	30	34	178	21	1
Frisbee	.61	17	22	23	63	193	18	1
George Washington	.49	27	12	31	55	177	34	1
Golfer	.49	75	27	57	46	91	40	1
Halloween	.49	2	5	18	42	264	5	1
Hot dog	.46	8	4	9	42	268	5	1
Ice cream cone	.40	2	3	12	27	287	5	2
Mickey Mouse	.52	8	4	13	45	264	2	1
Pilgrims	.45	23	14	28	61	152	58	1
Popcorn	.38	5	4	7	42	272	6	2
Sneakers	.48	10	6	15	56	240	9	1
Snoopy	.44	2	9	20	45	251	9	4
Snowman	.53	16	11	32	75	196	6	1
Mean		22	11	23	46	214	17	

Table V

Item Analysis for the Black-American Scale

Item (term)	r with total score	Response Distribution 1	2	3	4	5	6	Decision 1 retain 2 reject (%80) 3 reject (r 30) 4 reject (other)
Africa	.53	45	29	51	42	114	95	1
Afro	.64	73	20	40	30	124	29	1
Afro pick	.61	57	22	49	58	105	45	1
Basketball	.28	34	22	28	44	190	18	3
Black liberation flag	.48	28	16	35	47	115	95	1
Black love	.61	47	27	40	43	148	31	1
Black power	.53	40	10	29	44	156	57	1
Church	.32	29	11	15	35	228	18	1
Congo drums	.35	17	13	29	48	202	27	1
Corn rolls	.65	85	33	42	23	96	57	1
Dashiki	.46	11	4	33	25	126	137	1
Gelé	.59	48	36	34	40	54	124	1
Ham hocks	.31	50	13	22	51	132	68	1
Malcolm X	.58	36	13	37	36	95	119	1
Martin Luther King	.40	32	16	28	37	170	53	1
Soul music	.34	15	10	21	37	219	34	1
Unity handshake	.25	18	12	25	59	164	58	3
Mean		**39**	**18**	**33**	**42**	**143**	**60**	

Table VI

Item Analysis for the Puerto Rican Scale

Item (term)	r with total score	Response Distribution 1	2	3	4	5	6	Decision 1 retain 2 reject (%80) 3 reject (r 30) 4 reject (other)
Arroz con habichuelas	.56	40	12	21	47	174	42	4
Asopao	.42	20	9	24	53	185	45	1
Bacalao	.56	29	9	17	45	184	52	4
La bandera de Puerto Rico	.58	17	8	19	44	238	10	1
Café y pan	.56	17	10	26	50	208	25	4
Coco	.43	15	6	10	46	227	32	1
El coqui	.32	65	25	46	39	74	87	4
Los gallos	.52	39	17	35	45	154	46	1
Güiro y maracas	.52	18	12	26	51	175	34	1
El jibaro	.50	36	11	33	42	140	74	1
Juey	.36	94	19	26	27	115	55	1
Lechon asado	.65	40	17	29	25	181	44	1
Mangó	.51	9	77	20	23	232	45	4
La palma	.40	16	5	25	56	214	20	1
Panapén	.50	27	11	27	43	125	103	1
Pasteles	.54	14	10	14	27	222	49	4
La pava	.51	24	15	46	57	150	44	1
Piragüero	.49	30	9	24	27	170	76	1
Playa	.50	9	8	10	34	244	31	1
Plaza	.54	10	4	17	45	201	59	4
Procesión	.53	61	11	23	37	150	54	1
Quenepa	.44	10	11	21	31	204	59	1
Tostones	.60	19	13	22	33	184	65	4
Mean		**29**	**11**	**24**	**40**	**181**	**51**	

Final Form

The final fifteen items remaining for each scale after the developmental process were deliberately drawn and grouped separately in modules labeled *Black-American, Anglo-American,* and *Puerto Rican*. This was done to counterbalance the interpenetration of these three cultures, particularly in the dispersion of the Anglo-American way of life (e.g., "Coke," "hot dog," "sneakers"), and to allow for separate utilization of the three measures.

A set of standardized instructions were developed for the administration of the instrument (see the Test Manual). The term for each item was purposely not translated so as not to destroy its cultural integrity. Each cultural referent is presented in its oral as well as pictorial form to reinforce the stimulus it represents. The written label for each item is given to supplement, not replace, the oral presentation due to the variance in reading skill. In order to further facilitate the administration of the instrument, two practice items are provided. The first ("basketball") was selected for its widespread appeal among the three cultures so as to begin in a positive and comprehensible fashion. The second ("gnocchi") was selected to clarify the meaning of the "no knowledge" option (i.e., the separate face with the puzzled expression) and to reinforce a recognition that cultural pluralism extends to other significant segments of the school population.

Each scale is scored as an independent measure and generates two scores. The first score—an index of cultural attitude—is obtained by calculating the average among the five-face (happy-sad) sequence:

1) Assign values to the responses as follows—

1 point —very sad face

2 points—sad face

3 points—neutral face (center)

4 points—happy face

5 points—very happy face

2) Add the values of all responses.

3) Divide by the total number of items marked on the five-face scale. (The "questioning face" responses are not counted in calculating the cultural attitude index.)

An *Automatic Scoring Table* is provided in Appendix II to facilitate step 3. To use this table, simply locate the coordinates of the "Total Points" and the "Number of Items Marked" and read the subject's score at the intersection of the coordinates. For example, assume that a student earned 29 points by responding to 11 items in the 1-5 range. His score would be 2.64 as indicated in the table. Per specifications given below, note that provisions for scoring scales with 7 or less total responses are not included in the table.

The second score for each scale—an index of cultural knowledge—is generated by simply counting the number of the sixth-face (puzzled expressions) responses and subtracting from 15. Scales with 7 or less total responses should not be scored for either index.

Representative norms for these two indices are given in the next section of this report for each ethnic group and grade level.

PSYCHOMETRIC STUDIES

Efforts to evaluate and enhance the cultural attitudes of the pluralistic population of the American public schools are relatively recent phenomena (Cook, 1973). The pressing need for appropriate instrumentation and psychometric studies in this area is reflected in the review of the literature presented below. A summary of reliability, validity, and normative data for the *Cultural Attitude Scales* is provided in subsequent sections of this report.

Review of Related Instruments

The earliest and most extensive source of research data concerning cultural attitudes has been verbal instruments. Bogardus' (1925, 1933) *Social Distance Scale* is probably the best known. It represents a verbal continuum of seven social situations ranging from intimate acceptance (ex: "Would marry") to active rejection ("Would have lived outside my country"). Bogardus developed his instrument by having 100 judges, consisting of college faculty members and students, rate each of sixty statements according to the extent of social distance it reflected. According to the original form of the instrument, subjects were asked to indicate the statement(s) which expressed their reaction to each of 40 nationalities, 30 occupations, and 30 religions. It has revealed rather consistent results over several years of use with college students (Bogardus, 1958). Newcomb (1950) reported split-half reliability coefficients for the Bogardus scale as high as .90. Moreover, researchers (e.g., Smith, 1969) have modified the instrument so that the ethnic stimuli and social statements correspond to the locale of their study and so that the mode of response reflected a range of intensity for each statement.

Finally, other researchers (Miller & Briggs, 1958; Zeligs, 1948) have adapted

Bogardus' methodology for use with adolescent students.* There are no data available regarding the psychometric properties of this adapted form of Bogardus' instrument. However, its impracticability with respect to elementary school pupils seems clear, particularly where linguistic differences become a significantly limiting or intervening factor.

A second common verbal technique for assessing cultural attitudes is the semantic differential. Developed by Osgood, Suci, and Tannenbaum (1957), the semantic differential consists of pairs of bi-polar adjectives (ex: good-bad, strong-weak, fast-slow) typically demarcating a seven-point scale. Jenkins, Russell, and Suci (1957) found high reliability coefficients for the semantic differential mean ratings, although not for the individual ratings of American undergraduate students. Rosen (1959) found evidence of the predictive validity of this technique by comparing the results between American and Italian university students for twenty-seven concepts. However, he noted the conceptual and linguistic limitations of this technique with respect to pupils in the lower grades.

Sedlacek's (1971) *Situational Attitude Scale* represents an interesting technique for assessing cultural or ethnic attitudes which incorporates elements of both Bogardus' and Osgood's methodologies. The subject is presented with pairs of statements describing various socially sensitive situations. The first statement of each pair features a culturally neutral protagonist; the second statement differs from the first only in that it features an ethnically identified protagonist.

ex: Someone on our street was raped by a tall man.

Someone on our street was raped by a tall Black man.

---

* This student form of Bogardus' instrument is used as a verbal criterion in the sub-study reported on page 28.

The subject is asked to respond to each statement by selecting among bi-polar adjectives (e.g., afraid-unafraid, happy-sad). Although limited by its high verbal factor and redundancy restraints, this technique is potentially adaptable for use with secondary, if not elementary, school pupils (example of possible statement: "A new student just entered the class today.")

Another instrument worthy of mention is a multiple-choice type bicultural measure developed by Sealye (1968). Although limited in its application to highly literate Americans living in Guatamala, for which it appeared highly reliable and valid, Sealye's instrument exemplifies an enlightening empirical technique based upon contrastive analysis of target cultures. The range of cultural situations reflected in its items include recreation, food consumption, clothing, and religious practices specific to the target cultures.

Yousef's (1968) study suggested the effectiveness of everyday situational stimuli as compared with objective and impersonal generalizations in eliciting cultural attitudes. Radke and Sutherland (1940) employed an open-ended written questionnaire approach to try to elicit underlying cultural values and attitudes. However, both approaches are too verbal and abstract to be used alone in measuring the cultural attitudes of primary-school children.

Several other verbal instruments measuring attitudes toward minority groups are presented and discussed in Shaw & Wright (1967, pp. 358-413). All of these scales were developed prior to World War II, and most focus on interracial attitudes among black and white Americans. Although they were carefully developed, these instruments cannot be directly applied to the current assessment of attitudes among

elementary school students toward specific cultural groups because of recent socio-cultural development.

Due to the limitations of verbal instruments, researchers have turned to nonverbal forms of stimuli or response modes for assessing the cultural attitudes of elementary school students. Several studies have elicited data regarding the ethnic attitudes among black and white American pupils through the use of dolls (Clark & Clark, 1955; Goodman, 1964; Radke & Trager, 1950). Despite the significance of these studies, their stimulus modes and scoring techniques are not practicable for assessing the attitudes among groups of elementary school pupils towards specific cultural groups.

Related nonverbal instruments are based on the use of photographs, drawings, or cut-out figures. Horowitz (1939) utilized photographs of individual black and white American children as choices for "preferred playmates." Johnson (1950, 1959) employed selected photos as the basis of a projective measure to assess the racial attitudes of Anglo- and Mexican-American subjects. McCandless and Marshall (1957) found a similar technique to serve as a valid and reliable sociometric measure. Koslin (1970) utilized photographs of segregated and integrated classroom scenes as well as movable cut-out figures in simple social settings as indicators of interracial attitudes. The *Self-Social Symbols Tasks* (Ziller et al., 1969) also utilizes gummed cut-out figures to elicit racial attitudes as well as self-perceptions. *The Preschool Racial Attitude Measure* (Thompson et al., 1967) includes elements of the previously mentioned verbal and non-verbal instruments. The child is presented twelve brief stories, each of which portrays a protagonist in a value-laden social situation. After hearing each story, the child is asked to choose between two drawings of the protagonist which differ only in

skin color (ex: "Here are two girls. Everyone says that one of them is pretty. Which is the pretty girl?"). Although these creative techniques have been successfully used with young children, they are basically limited to black-white stereotypes.

Schmeidler and Windholz (1972) utilized an unusual nonverbal response method in a study comparing university students from Thailand and the United States. The students were asked to draw a line of any shape to express the meaning of each of a list of words. Each drawing was scored for such variables as pressure, closure, complexity, direction and size. Farber and Schmeidler (1971) employed the same technique in comparing attitudinal differences to "black" and "white" among Anglo- and Black-American adolescents. The scoring system as well as conceptual basis would seem of limited applicability to the purposes of the present study.

The *Cross-Cultural Attitude Inventory*, a forerunner of the present instrument, was developed by Jackson and Klinger (1971) to assess attitudes toward Mexican-American and Anglo-American cultures among elementary school pupils. It consists of drawings of various popular symbols of these two cultures to which the child is asked to respond by marking one of five faces on a sad-happy dimension. Jackson (1973) reported test-retest correlations for the Mexican-American and Anglo-American items of .57 and .76 respectively for a 15-day period (n = 92), and of .49 and .58 for a 30-day period (n = 83). McCallon (1973) judged these reliability coefficients to indicate a relatively good degree of stability, considering the difficulties of measurement in this area.

Reliability Studies

The split-half reliability coefficients adjusted by the Spearman-Brown formula, which were obtained with a sample of 330 Anglo-American, Black-American, and Puerto Rican pupils in grades 1-6, are reported in Table VII:

Table VII
Split-Half Spearman-Brown Reliability Coefficients
(n = 330)

Black-American Scale	.68
Puerto Rican Scale	.77
Anglo-American Scale	.77

It can be seen that the split-half reliability coefficients ranged from .68 to .77. Each is significant beyond the .001 level. In light of the construct being measured, the scales are adjusted to be internally consistent.

The test-retest reliability coefficients obtained over a three-week interval with a sample of Anglo-American, Black-American, and Puerto Rican students distributed across grades 1-6 are reported in Table VIII:

Table VIII
Test-Retest Reliability Coefficients

	Black-American Pupils (n = 39)	Puerto Rican Pupils (n = 56)	Total, incl. 12 Anglo Pupils (n = 101)
Black-American Scale	.61	.60	.59
Puerto Rican Scale	.52	.58	.53
Anglo-American Scale	.57	.61	.60

As may be seen by viewing Table VIII, the test-retest reliability coefficients ranged from .52 to .61 and were statistically significant at the .01 level.

Validity Studies

The pooling and screening procedures described in the "Development" section of this report reflect the content and construct validity of the CAS. Evidence of the construct validity of the scales is revealed in Tables XVI and XXI. A cultural attitude index and a cultural knowledge index are generated for each scale. It can be seen in the

above-mentioned tables that the most knowledgeable and favorable cultural group for each scale was generally the one represented by that scale. For example, one can see in Table XXI that the mean Anglo-American knowledge score of 14.84 on the Anglo-American scale exceeded the mean knowledge scores of 11.00 for the Black-American and 9.14 for the Puerto Ricans. That these means were significantly different is confirmed in Table IX:

Table IX
ANOVA *F* Ratios for Ethnic Group Mean Differences of Attitude and Knowledge Scores

	Anglo-American Scale	Black-American Scale	Puerto Rican Scale
Attitude Means	8.62**	37.07**	20.34**
Knowledge Means	14.07**	37.84**	37.21**

**$p < .01$

Furthermore, the attitude and knowledge scores obtained by each ethnic group in the scale corresponding to its own culture exceed their scores on the other two scales. For example, one can see in Table XVI that the mean Black-American attitude score on the Black-American scale was 4.24 and that this score exceeded their mean attitude scores of 4.20 and 3.85 on the Anglo-American and Puerto Rican scales, respectively. Moreover, in support of construct validity, the mean modular knowledge scores by ethnic group tended to increase as grade level increased, which may be seen by viewing Tables XXII, XXIII, XXIV.

In order to assess the validity of the *Cultural Attitude Scales*, data were reflective of the relationship between the *CAS* results and those of the following

external criteria: 1) teacher rating scale, 2) a sociogram and 3) a verbal attitude scale.

In substudy 1, the teachers of 330 Anglo-American, Black-American and Puerto Rican pupils in grades 1-6 were asked at the end of the school year to rate the attitude of each of their pupils toward each of the three cultures on a 1 (very negative) to 5 (very positive) Likert-type scale. At the same time and independent of the teachers' ratings, the pupils were tested by outside examiners with the *Cultural Attitude Scales*. The correlation coefficients between the teacher ratings and test results for each target culture are given in Table X:

Table X
Relationship Between Teacher Ratings and Test Results for 330 Pupils

Black-American	.23**
Puerto Rican	.15**
Anglo-American	.34**

**p< .01

As seen in Table X, the results of the teacher ratings and the *CAS* results were statistically significant beyond the .01 level for each of the three target cultural groups. Although neither the teachers nor the test is expected to reveal an absolutely accurate assessment of the cultural attitudes of individual students, the extent of overlap between these two sources indicates that the modular measures of the *CAS* may be valid indices of groups of pupils.

Substudy 2 was designed to explore the relationship between the *CAS* scores and the results of a sociogram in terms of ethnicity. In this substudy, a sample of 102 pupils in five multi-ethnic classrooms (grades 2-4) were asked to indicate their socio-

metric choices according to a technique described by Cohen (1969). The pupils are each given a number which is clearly visible on an Indian-style headband. After arranging their seats in a large circle, the examiner directs the children in a game which results in their listing their two preferred choices for playing with, working with, and sitting with. The responses were analyzed according to ethnicity so as to generate Puerto Rican, Black-American, and Anglo-American socio-values for each subject.

The same subjects were tested the following day with the *CAS*. The correlation analysis between the sociogram scores and the *CAS* scores are reported in Table XI. It was hypothesized that significant relationships would emerge between the pupils' ethnic choices on the sociogram and their ethnic attitudes as revealed by the *CAS*.

Table XI

Correlation Coefficients between Sociogram Scores and *CAS* Results with Respect to Ethnicity (n = 102)

Black-American	.18
Puerto Rican	.28**
Anglo-American	.21*

* $p < .05$

** $p < .01$

As shown by Table XI, the relationship between the sociometric criterion and the *Cultural Attitude Scales* approached significance with respect to the Black-American culture and attained significance with respect to the Anglo-American and Puerto Rican cultures beyond the .05 and .01 levels, respectively. Although sociometric

choices within multi-ethnic classrooms certainly entail a complex of individual factors including ethnicity as only one facet, the relationship between the ethnic choices of the sociogram and the cultural attitudes from the *CAS* provides further evidence of the validity of the use of the instrument's modular measures.

In substudy 3, the results of each scale were compared with those of a verbal criterion measure of cultural attitudes. The criterial measure selected for this substudy was based upon Zelig's (1948) and Miller & Briggs' (1958) adaptations of Bogardus' techniques for use with adolescent students. The subjects consisted of 87 pupils in grades 6-7 (n = 29 for each ethnic group). This upper limit of the grade range for the *CAS* was selected to attain a practicable level for administering the criterion instrument. Moreover, the criterion instrument was presented bilingually to assure comprehension and uniformity in the verbal stimuli. The correlation coefficients obtained between the *Cultural Attitude Scales* and the verbal criterion are given in Table XII for each ethnic subgroup:

Table XII

Correlation Coefficients between *CAS* and Verbal Criterion

Black-American Scale	.46**
Puerto Rican Scale	.32**
Anglo-American Scale	.39**

**p < .01

As revealed by Table XII, the relationship between the verbal criterion and the attitude scale for each culture attained significance beyond the .01 level. These results provide further evidence of the concurrent validity of the *Cultural Attitude Scales.*

An examination of the relationship between the *Cultural Attitude Scales* and the organismic variables of sex, age, and grade were examined for the first substudy's sample of 330 pupils. In contrast to the criterion variables, these variables should be independent of the test's results in order to indicate validity. The relationships are reported in Table XIII:

Table XIII

Correlation Coefficients Between *CAS* Scores and Organismic Variables

	Sex	Age	Grade
Black-American	.06	.02	.13*
Puerto Rican	−.03	.02	−.06
Anglo-American	.12*	.03	−.06

*$p < .05$

As hypothesized, the relationship between the *CAS* and the organismic variables were generally low and not statistically significant, indicating the relative independence of the test instrument.

As a final review of the validity of the *CAS*, the intercorrelations between the three scales were generated (see Table XIV). Although the scales are independent measures, one would expect a moderate interrelationship between them as a reflection of the generality of the psychological constraints of "culture" and of "attitude."

Table XIV

Intercorrelation Between the Three Scales

	Black-American Scale	Puerto Rican Scale
Black-American Scale		
Puerto Rican Scale	.14	
Anglo-American Scale	.33**	.55**

**p < .01

Summary and Conclusions

Various substudies provided general evidence of the validity and reliability of *CAS*. The test-retest and split-half reliability coefficient reflected a moderate degree of stability and internal consistency for each scale, especially when compared to previous instruments in this area. The developmental process provided evidence of the construct and content validity of the *CAS*, further supported by the degree and directionality of the normative scores. Evidence of the criterion validity of the *CAS* was revealed in the statistically significant correlation coefficients between its results and the following criteria: 1) teacher ratings; 2) sociometric choices; and 3) the results of a verbal cultural attitude instrument.

Normative Data

The data reported in the following tables are intended to aid in the interpretation of scores. They are based upon the test performance of the total sample used in the reliability and validity substudies and assumed normality. However, it should be recognized that these data represent a starting point rather than a final framework of norms for the *Cultural Attitude Scales.*

These localized norms for the modular attitude scores are presented in Table XV. Tables XVI through XIX further position the normative data by ethnicity and grade level of the subjects. Using a similar presentation format, Tables XX through XXIV provide localized normative information for the modular knowledge index.

Table XV

Modular Attitude Scores for Each Decile: Total Group (Gr. 1-6)

Percentile	Anglo-American Scale	Black-American Scale	Puerto Rican Scale
10	3.49	2.85	3.23
20	3.74	3.18	3.54
30	3.92	3.42	3.77
40	4.08	3.62	3.95
50	4.22	3.81	4.13
60	4.36	4.00	4.30
70	4.52	4.20	4.49
80	4.70	4.44	4.72
90	4.95	4.77	4.91
$\bar{x}$	4.22	3.81	4.13
sd	.57	.75	.70

Table XVI

Modular Attitude Scores for Each Decile: Grades 1-6 by Ethnic Group

	Anglo-American Scale			Black-American Scale			Puerto Rican Scale		
Percentile	A-A	B-A	PR	A-A	B-A	PR	A-A	B-A	PR
10	4.09	3.59	3.72	2.76	3.61	2.79	2.79	2.98	3.62
20	4.26	3.80	3.94	3.10	3.83	3.09	3.15	3.28	3.87
30	4.38	3.95	4.10	3.35	3.99	3.31	3.42	3.50	4.05
40	4.48	4.08	4.24	3.56	4.12	3.50	3.64	3.68	4.20
50	4.58	4.20	4.37	3.76	4.24	3.67	3.85	3.85	4.34
60	4.67	4.32	4.50	3.95	4.36	3.84	4.06	4.02	4.48
70	4.78	4.45	4.64	4.17	4.49	4.03	4.28	4.20	4.63
80	4.90	4.60	4.80	4.42	4.65	4.25	4.55	4.42	4.81
90	4.95	4.81	4.90	4.76	4.87	4.55	4.91	4.72	4.90
$\bar{x}$	4.58	4.20	4.37	3.76	4.24	3.67	3.85	3.85	4.34
sd	.38	.48	.51	.78	.49	.69	.83	.68	.56

Table XVII

Modular Attitude Scores for Each Decile: Grades 1-2 by Ethnic Group

	Anglo-American Scale			Black-American Scale			Puerto Rican Scale		
Percentile	A-A	B-A	PR	A-A	B-A	PR	A-A	B-A	PR
10	3.88	3.42	3.46	2.91	3.40	2.60	3.07	3.01	3.41
20	4.10	3.68	3.73	3.28	3.66	2.94	3.40	3.32	3.71
30	4.26	3.87	3.92	3.55	3.85	3.19	3.64	3.55	3.92
40	4.40	4.03	4.09	3.78	4.01	3.40	3.84	3.74	4.10
50	4.53	4.18	4.24	3.99	4.16	3.60	4.03	3.92	4.27
60	4.66	4.33	4.39	4.20	4.31	3.79	4.22	4.10	4.44
70	4.80	4.49	4.56	4.43	4.47	4.01	4.42	4.29	4.62
80	4.96	4.68	4.75	4.70	4.66	4.26	4.66	4.52	4.83
90	4.99	4.94	4.89	4.81	4.92	4.60	4.99	4.83	4.97
$\bar{x}$	4.53	4.18	4.24	3.99	4.16	3.60	4.03	3.92	4.27
sd	.51	.59	.61	.84	.59	.78	.75	.71	.67

Table XVIII

Modular Attitude Scores for Each Decile: Grades 3-4 by Ethnic Group

	Anglo-American Scale			Black-American Scale			Puerto Rican Scale		
Percentile	A-A	B-A	PR	A-A	B-A	PR	A-A	B-A	PR
10	4.16	3.36	3.67	2.99	4.07	2.63	2.87	2.75	3.67
20	4.28	3.60	3.88	3.24	4.25	2.95	2.95	3.11	3.90
30	4.37	3.77	4.03	3.42	4.34	3.18	3.00	3.38	4.07
40	4.44	3.91	4.16	3.57	4.42	3.38	3.05	3.60	4.21
50	4.51	4.05	4.28	3.71	4.49	3.56	3.09	3.81	4.34
60	4.58	4.18	4.40	3.85	4.56	3.74	3.13	4.02	4.47
70	4.65	4.33	4.53	4.00	4.64	3.94	3.18	4.24	4.61
80	4.74	4.50	4.68	4.18	4.73	4.17	3.23	4.51	4.78
90	4.86	4.74	4.89	4.43	4.91	4.49	3.31	4.87	4.89
$\bar{x}$	4.51	4.05	4.28	3.71	4.49	3.56	3.09	3.81	4.34
sd	.27	.54	.49	.56	.33	.73	.17	.83	.52

Table XIX

Modular Attitude Scores for Each Decile: Grades 5-6 by Ethnic Group

	Anglo-American Scale			Black-American Scale			Puerto Rican Scale		
Percentile	A-A	B-A	PR	A-A	B-A	PR	A-A	B-A	PR
10	3.70	3.29	3.46	2.30	3.42	2.91	3.07	3.21	3.48
20	3.94	3.50	3.73	2.52	3.58	3.16	3.30	3.42	3.76
30	4.11	3.65	3.93	2.68	3.80	3.35	3.47	3.57	3.97
40	4.26	3.77	4.09	2.82	4.00	3.50	3.61	3.69	4.15
50	4.39	3.89	4.25	2.95	4.19	3.65	3.74	3.81	4.31
60	4.52	4.01	4.40	3.08	4.38	3.79	3.87	3.93	4.47
70	4.67	4.13	4.57	3.22	4.58	3.95	4.01	4.05	4.65
80	4.84	4.28	4.77	3.38	4.70	4.14	4.18	4.20	4.86
90	4.97	4.49	4.90	3.60	4.85	4.39	4.41	4.41	4.94
$\bar{x}$	4.39	3.89	4.25	2.95	4.19	3.65	3.74	3.81	4.31
sd	.54	.47	.62	.51	.58	.58	.52	.47	.65

Table XX

Modular Knowledge Scores for Percentile Levels: Total Group (Gr. 1-6)

Percentile	Anglo-American Scale	Black-American Scale	Puerto Rican Scale
90	12.12	8.43	8.92
80	12.80	9.72	10.24
70	13.29	10.66	11.20
60	13.71	11.45	12.02
50	14.10	12.18	12.77
40	14.49	12.91	13.52
30	***	13.70	14.44
20	***	14.54	***
10	***	***	***
$\bar{x}$	14.10	12.91	13.52

Table XXI

Modular Knowledge Scores for Percentile Levels: Grades 1-6 by Ethnic Group

	Anglo-American Scale			Black-American Scale			Puerto Rican Scale		
Percentile	A-A	B-A	PR	A-A	B-A	PR	A-A	B-A	PR
90	14.08	6.53	2.02	13.44	11.91	9.67	11.45	7.62	11.02
80	14.44	8.07	4.47	13.82	12.62	10.00	12.25	8.93	11.85
70	14.53	9.19	6.25	14.09	13.13	10.97	12.83	9.88	12.45
60	14.69	10.13	7.75	14.33	13.56	11.79	13.32	10.69	12.96
50	14.84	11.00	9.14	14.54	13.96	12.54	13.77	11.43	13.43
40	***	11.87	10.53	14.75	14.36	13.30	14.22	13.18	13.90
30	***	12.81	12.03	***	14.79	14.11	14.71	12.98	14.41
20	***	13.93	13.81	***	***	***	***	13.93	***
10	***	***	***	***	***	***	***	***	***
$\bar{x}$	14.83	11.00	9.14	14.54	13.96	12.54	13.77	11.43	13.43

Table XXII

Modular Knowledge Scores for Percentile Levels: Grades 1-2 by Ethnic Group

	Anglo-American Scale			Black-American Scale			Puerto Rican Scale		
Percentile	A-A	B-A	PR	A-A	B-A	PR	A-A	B-A	PR
90	14.40	13.41	10.38	5.42	11.13	6.67	.97	8.08	10.66
80	14.56	13.75	11.36	6.68	11.95	8.12	3.12	9.40	11.49
70	14.67	14.00	12.07	7.59	12.55	9.11	4.68	10.36	12.09
60	14.77	14.21	13.67	8.37	13.05	9.98	6.00	11.18	12.57
50	14.86	14.40	13.22	9.08	13.52	10.78	7.22	11.93	13.07
40	***	14.59	13.78	9.80	13.99	11.58	8.44	12.68	13.54
30	***	14.80	14.37	10.57	14.49	12.45	9.76	13.50	14.05
20	***	***	***	11.48	***	13.48	11.32	14.46	14.65
10	***	***	***	12.74	***	14.89	13.47	***	***
$\bar{x}$	14.83	14.40	13.22	9.08	13.52	10.78	7.22	11.93	13.07

Table XXIII

Modular Knowledge Scores for Percentile Levels: Grades 3-4 by Ethnic Group

Percentile	Anglo-American Scale			Black-American Scale			Puerto Rican Scale		
	A-A	B-A	PR	A-A	B-A	PR	A-A	B-A	PR
90	13.27	13.17	12.86	6.25	11.91	8.27	.79	7.59	10.99
80	13.74	13.64	12.32	7.97	12.66	9.40	1.94	9.29	11.86
70	14.08	13.98	12.65	9.22	13.21	10.22	3.87	10.53	12.49
60	14.37	14.27	13.94	10.27	13.67	10.92	5.50	11.57	13.03
50	14.63	14.54	14.20	11.25	14.10	11.56	7.00	12.54	13.52
40	14.89	14.81	14.46	12.23	14.53	12.20	8.50	13.51	14.02
30	***	***	14.75	13.28	***	12.90	10.13	14.55	14.55
20	***	***	***	14.53	***	13.72	12.06	***	***
10	***	***	***	***	***	14.85	14.71	***	***
$\bar{x}$	14.63	14.54	14.20	11.25	14.10	11.56	7.00	12.54	13.52

Table XXIV

Modular Knowledge Scores for Percentile Levels: Grades 5-6 by Ethnic Group

	Anglo-American Scale			Black-American Scale			Puerto Rican Scale		
Percentile	A-A	B-A	PR	A-A	B-A	PR	A-A	B-A	PR
90	***	13.80	13.34	12.70	13.27	11.18	13.68	11.19	13.66
80	***	14.12	13.78	13.19	13.65	12.05	14.01	11.93	13.99
70	***	14.35	14.10	13.55	13.93	12.68	14.25	13.47	14.23
60	***	14.54	14.38	13.85	14.16	13.22	14.45	12.93	14.44
50	***	14.72	14.63	14.13	14.38	13.71	14.63	13.35	14.63
40	***	14.90	14.88	14.41	14.60	14.20	14.81	13.77	14.82
30	***	***	***	14.71	14.83	14.74	***	14.27	***
20	***	***	***	***	***	***	***	14.77	***
10	***	***	***	***	***	***	***	***	***
$\bar{x}$	***	14.72	14.63	14.13	14.[illegible]	71	14.63	13.55	14.63

Appendix I

Name (Optional)
Nombre (opcional)_____

Sex (Circle One): M F
Sexo (Márquelo con un círculo): M F

Age
Edad _____

School/Teacher
Escuela/Maestro(a) _____

YOU ARE ASKED TO ASSIST IN OUR EFFORTS TO DEVELOP A MEANINGFUL ETHNIC ATTITUDE MEASURE FOR INNER CITY CHILDREN IN THE ELEMENTARY GRADES.

LE PEDIMOS SU COOPERACION Y AYUDA EN NUESTROS ESFUERZOS PARA DESARROLLAR MEDIDAS SIGNIFICATIVAS DE ORDEN ETNICO ENTRE LOS NIÑOS DE LOS GRADOS ELEMENTALES DE LAS AREAS URBANAS.

PLEASE LISTEN TO THE TERM AND LOOK AT THE PICTURE FOR EACH ITEM IN ORDER. THEN PLEASE INDICATE THE FOLLOWING INFORMATION FOR EACH ITEM.

POR FAVOR ESCUCHEN. OIGAN EL TERMINO Y MIREN A LA LAMINA DE CADA ITEM NUMERADO EN ORDEN. DESPUES SIRVANSE MARCAR LA INFORMACION QUE LE PEDIMOS A CONTINUACION SOBRE CADA ITEM.

ITEM

a) How well you feel that the item represents the culture (way of life) of _____ (by circling the appropriate number):

Hasta que punto piensa Ud. que el ítem es representativo de la cultura _____ (márque con un círculo al número correspondiente).

b) Whether you think the item reflects negatively or positively on the way of life of _____ (by circling the appropriate symbol).

Cree Ud. que el ítem refleja aspectos positivos o negativos de la cultura _____ (márque con un círculo al símbolo correspondiente).

c) Any comments, including suggested revisions in the terms, and/or picture presented for each item.

Anote cualquier comentario o sugerencias que estime Ud. apropiado, ya sea respecto a los términos o laminas representativas de cada ítem. Si son/o no son de acuerdo a su criterio personal, apropiadas, o si debemos mejorar o revisar los ítems presentados.

	Not at all De ninguna manera	Poor Mál	Good Bueno	Excellent Excelente	Positive Positivo	Negative Negativo
1.	0	1	2	3	+	–
2.	0	1	2	3	+	–

_____
_____
_____
_____

LIST BELOW ANY ADDITIONAL ITEMS THAT YOU FEEL WOULD BE APPROPRIATE FOR THE INVENTORY, INCLUDING WHETHER YOU VIEW IT AS POSITIVE OR NEGATIVE AND HOW YOU FEEL IT SHOULD BE DRAWN:

NUMERE A CONTINUACION (ABAJO) CUALQUIER ITEM QUE UD. CREA APROPIADO PARA NUESTRO INVENTARIO. INCLUYENDO, SI UD. LO VISUALIZA, COMO POSITIVO O NEGATIVO, Y COMO UD. CREE QUE DEBERIAN SER DIBUJADOS (ILUSTRADOS).

Suggested Items Items Sugeridos	Positive Positivo	Negative Negativo	Clarification(s) for our aritsts: Aclaración(es) para nuestro dibujante:
1.	+	–	
2.	+	–	
3.	+	–	
4.	+	–	
5.	+	–	
6.	+	–	
7.	+	–	
8.	+	–	
9.	+	–	
10.	+	–	

Appendix II

Automatic Scoring Table

Entries Indicate the Subject's Score, Given the Total Points and Number of Responses

Number of Items Marked in 1-5 Range

Total Points	8	9	10	11	12	13	14	15
8	1.00							
9	1.13	1.00						
10	1.25	1.11	1.00					
11	1.38	1.22	1.10	1.00				
12	1.50	1.33	1.20	1.09	1.00			
13	1.63	1.44	1.30	1.19	1.08	1.00		
14	1.75	1.56	1.40	1.27	1.17	1.08	1.00	
15	1.88	1.67	1.50	1.36	1.25	1.15	1.07	1.00
16	2.00	1.78	1.60	1.45	1.33	1.23	1.14	1.07
17	2.13	1.89	1.70	1.55	1.42	1.31	1.21	1.13
18	2.25	2.00	1.80	1.64	1.50	1.38	1.29	1.20
19	2.38	2.11	1.90	1.73	1.58	1.46	1.36	1.27
20	2.50	2.22	2.00	1.82	1.67	1.54	1.43	1.33
21	2.63	2.33	2.10	1.91	1.75	1.62	1.50	1.40
22	2.75	2.44	2.20	2.00	1.83	1.69	1.57	1.47
23	2.88	2.56	2.30	2.09	1.92	1.77	1.64	1.53
24	3.00	2.67	2.40	2.18	2.00	1.85	1.71	1.60
25	3.13	2.78	2.50	2.27	2.08	1.92	1.79	1.67
26	3.25	2.89	2.60	2.36	2.17	2.00	1.86	1.73
27	3.38	3.00	2.70	2.45	2.25	2.08	1.93	1.80
28	3.50	3.11	2.80	2.55	2.33	2.15	2.00	1.87
29	3.63	3.22	2.90	2.64	2.42	2.23	2.07	1.93
30	3.75	3.33	3.00	2.73	2.50	2.31	2.14	2.00
31	3.88	3.44	3.10	2.82	2.58	2.38	2.21	2.07
32	4.00	3.56	3.20	2.91	2.67	2.46	2.29	2.13
33	4.13	3.67	3.30	3.00	2.75	2.54	2.36	2.20

Appendix II (continued)
Automatic Scoring Table (continued)

Total Points	Number of Items Marked in 1-5 Range							
	8	9	10	11	12	13	14	15
34	4.25	3.78	3.40	3.09	2.83	2.62	2.43	2.27
35	4.38	3.89	3.50	3.18	2.92	2.69	2.50	2.33
36	4.50	4.00	3.60	3.27	3.00	2.77	2.57	2.40
37	4.63	4.11	3.70	3.36	3.08	2.85	2.64	2.47
38	4.75	4.22	3.80	3.45	3.17	2.92	2.71	2.53
39	4.88	4.33	3.90	3.55	3.25	3.00	2.79	2.60
40	5.00	4.44	4.00	3.64	3.33	3.08	2.86	2.67
41		4.56	4.10	3.73	3.42	3.15	2.93	2.73
42		4.67	4.20	3.82	3.50	3.23	3.00	2.80
43		4.78	4.30	3.91	3.58	3.31	3.07	2.87
44		4.89	4.40	4.00	3.67	3.38	3.14	2.93
45		5.00	4.50	4.09	3.75	3.46	3.21	3.00
46			4.60	4.18	3.83	3.54	3.29	3.07
47			4.70	4.27	3.92	3.82	3.36	3.13
48			4.80	4.36	4.00	3.69	3.43	3.20
49			4.90	4.45	4.08	3.77	3.50	3.27
50			5.00	4.55	4.17	3.85	3.57	3.33
51				4.64	4.25	3 92	3.64	3.40
52				4.73	4.33	4.00	3.71	3.47
53				4.82	4.42	4.08	3.79	3.53
54				4.91	4.50	4.15	3.86	3.60
55				5.00	4.58	4.23	3.93	3.67
56					4.67	4.31	4.00	3.73
57					4.75	4.38	4.07	3.80
58					4.83	4.46	4.14	3.87
59					4.92	4.54	4.21	3.93
60					5.00	4.62	4.29	4.00

Appendix II (continued)
Automatic Scoring Table (continued)

Total Points	Number of Items Marked in 1-5 Range							
	8	9	19	11	12	13	14	15
61						4.69	4.36	4.07
62						4.77	4.43	4.13
63						4.85	4.50	4.20
64						4.92	4.57	4.27
65						5.00	4.64	4.33
66							4.71	4.40
67							4.79	4.47
68							4.86	4.53
69							4.93	4.60
70							5.00	4.67
71								4.73
72								4.80
73								4.87
74								4.93
75								5.00

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